Europäisches Patentamt European Patent Office Office européen des brevets



(11) EP 1 266 677 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication: 18.12.2002 Bulletin 2002/51

(51) Int CI.7: A63F 7/02

(21) Application number: 02290931.1

(22) Date of filing: 12.04.2002

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE TR

Designated Extension States:

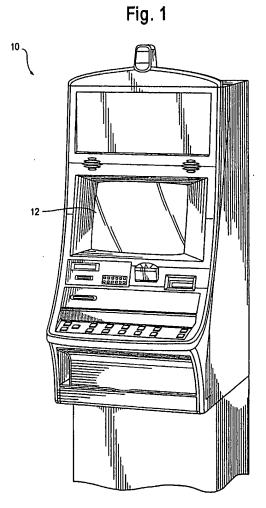
AL LT LV MK RO SI

(30) Priority: 11.06.2001 US 878592

- (71) Applicant: WMS Gaming Inc Waukegan, Illinois 60085 (US)
- (72) Inventor: Blankstein, Michael J. Madison, Wisconsin 53719 (US)
- (74) Representative: Verdure, Stéphane Cabinet Plasseraud,84 Rue d'Amsterdam 75440 Paris Cédex 09 (FR)

(54) Bonus games for gaming machine with game show theme

(57) A game of chance for a gaming machine is controlled by a processor in response to a wager. The game of chance includes a basic game and one or more bonus games. The basic game randomly selects one of a plurality of possibly outcomes. The plurality of possible outcomes includes one or more start-bonus outcomes for triggering respective ones of the bonus games. The bonus games have a game show theme and preferably include randomly selected pricing indicia representing the price of one or more fictional or non-fictional objects.



EP 1 266 677 A1

FIELD OF THE INVENTION

[0001] This invention is directed generally to gaming machines and, more particularly, to bonus games for a gaming machine having a game show theme.

BACKGROUND OF THE INVENTION

[0002] Gaming machines, such as slot machines, video poker machines and the like, have been a cornerstone of the gaming industry for several years. Generally, the popularity of such machines with players is dependent on the likelihood (or perceived likelihood) of winning money at the machine and the intrinsic entertainment value of the machine relative to other available gaming options. Where the available gaming options include a number of competing machines and the expectation of winning each machine is roughly the same (or believed to be the same), players are most likely to be attracted to the most entertaining and exciting of the machines. Shrewd operators consequently strive to employ the most entertaining and exciting machines available because such machines attract frequent play and hence increase profitability to the operator. Accordingly, in the competitive gaming machine industry, there is a continuing need for gaming machine manufacturers to produce new types of games, or enhancements to existing games, which will attract frequent play by enhancing the entertainment value and excitement associated with the game.

[0003] One concept that has been successfully employed to enhance the entertainment value of a game is the concept of a "secondary" or "bonus" game that may be played in conjunction with a "basic" game. The bonus game may comprise any type of game, either similar to or completely different from the basic game, which is entered upon the occurrence of a selected event or outcome of the basic game. Because the bonus game concept offers tremendous advantages in player appeal and excitement relative to other known games, and because such games are attractive to both players and operators, there is a continuing need to develop new features for bonus games to satisfy the demands of players and operators. Preferably, such new bonus game features will maintain, or even further enhance, the level of player excitement offered by bonus games heretofore known in the art. The present invention is directed to satisfying these needs.

SUMMARY OF THE INVENTION

[0004] Briefly, in accordance with the foregoing, a game of chance for a gaming machine is controlled by a processor in response to a wager. The game of chance includes a basic game and one or more bonus games. The basic game randomly selects one of a plurality of

possibly outcomes. The plurality of possible outcomes includes one or more start-bonus outcomes for triggering respective ones of the bonus games. The bonus games have a game show theme and preferably include randomly selected pricing indicia representing the price of one or more fictional or non-fictional objects.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] In the drawings:

FIG. 1 is an isometric view of a gaming machine embodying the present invention;

FIG. 2 is a block diagram of a control system suitable for operating the gaming machine;

FIG. 3 is a display screen capture associated with a basic slot game played on the gaming machine; and

FIGS. 4 through 66 are schematic diagrams of various bonus games that may be triggered by the basic slot game.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENT

[0006] Referring now to the drawings, and initially to FIG. 1, there is depicted a gaming machine 10 executing a game of chance according to the present invention. The game of chance includes a basic game, such as slots, poker, blackjack, keno, or bingo, and one or more bonus games triggered by respective start-bonus outcomes in the basic game. The bonus games have a game show theme and preferably include randomly selected pricing indicia representing the price of one or more objects. The gaming machine 10 includes a visual display 12 preferably in the form of a dot matrix, CRT, LED, LCD, electroluminescent, or other type of video display known in the art. The display 12 preferably includes a touch screen overlaying the monitor. In the illustrated embodiment, the gaming machine 10 is an "upright" version in which the display 12 is oriented vertically relative to the player. Alternatively, the gaming machine may be a "slant-top" version in which the display 12 is slanted at about a thirty-degree angle toward the player of the gaming machine 10.

[0007] -FIG. 2 is a block diagram of a control system suitable for operating the gaming machine 10. Coin/ credit detector 14 signals a central processing unit ("CPU") 16 when a player has inserted a number of coins or played a number of credits. Then, the CPU 16 operates to execute a game program that causes the display 12 to display the basic game that, in one embodiment, includes simulated symbol-bearing reels. The player may select the number of pay lines to play and the amount to wager via touch screen input keys 17. The basic game commences in response to the player activating a switch 18 (e.g., by pulling a lever or pushing a button), causing the CPU 16 to set the reels in motion,

20

25

30

45

randomly select one of a plurality of possible basic game outcomes, and then stop the reels to display symbols corresponding to the pre-selected game outcome. The plurality of possible basic game outcomes include one or more of the start-bonus outcomes that cause the CPU 16 to enter a bonus mode whereby the display 12 shows respective bonus games. The bonus games have a game show theme and preferably include randomly selected pricing indicia representing the price of one or more fictional objects.

[0008] A system memory 20 stores control software, operational instructions and data associated with the gaming machine 10. In one embodiment, the memory 20 comprises a separate read-only memory (ROM) and battery-backed random-access memory (RAM). However, it will be appreciated that the system memory 20 may be implemented on any of several alternative types of memory structures or may be implemented on a single memory structure. A payoff mechanism 22 is operable in response to instructions from the CPU 16 to award a payoff of coins or credits to the player in response to certain winning outcomes which might occur in the basic game or bonus games. The payoff amounts corresponding to certain combinations of symbols in the basic game is predetermined according to a pay table stored in system memory 20. The payoff amounts corresponding to certain outcomes of the bonus games are also stored in system memory 20.

[0009] As shown in FIG. 3, the basic game is implemented on the display 12 on five video simulated spinning reels 30-34 with nine pay lines 40-48. Each of the pay lines 40-48 extends through one symbol on each of the five reels 30-34. Generally, game play is initiated by inserting a number of coins or playing a number of credits, causing the CPU 16 (FIG. 2) to activate a number of pay lines corresponding to the number of coins or credits played. In one embodiment, the player selects the number of pay lines (between one and nine) to play by pressing a "Select Lines" key 50 on the video display 12. The player then chooses the number of coins or credits to bet on the selected pay lines by pressing the "Bet Per Line" key 52.

[0010] After activation of the pay lines, the reels 30-34 may be set in motion by touching the "Spin Reels" key 54 or, if the player wishes to bet the maximum amount per line, by using the "Max Bet Spin" key 56 on the video display 12. Alternatively, other mechanisms such as, for example, a lever or push button may be used to set the reels in motion. The CPU 16 uses a random number generator to select a game outcome (e.g., "basic" game outcome) corresponding to a particular set of reel "stop positions." The CPU 16 then causes each of the video reels 30-34 to stop at the appropriate stop position. Video symbols are displayed on the reels 30-34 to graphically illustrate the reel stop positions and indicate whether the stop positions of the reels represent a winning game outcome.

[0011] Winning basic game outcomes (e.g., symbol

combinations resulting in payment of coins or credits) are identifiable to the player by a pay table. In one embodiment, the pay table is affixed to the machine 10 and/ or displayed by the video display 12 in response to a command by the player (e.g., by pressing the "Pay Table" button 58). A winning basic game outcome occurs when the symbols appearing on the reels 30-34 along an active pay line correspond to one of the winning combinations on the pay table. A winning combination, for example, could be three or more matching symbols along an active pay line, where the award is greater as the number of matching symbols along the active pay line increases. If the displayed symbols stop in a winning combination, the game credits the player an amount corresponding to the award in the pay table for that combination multiplied by the amount of credits bet on the winning pay line. The player may collect the amount of accumulated credits by pressing the "Collect" button 59. In one implementation, the winning combinations start from the first reel 30 (left to right) and span adjacent reels. In an alternative implementation, the winning combinations start from either the first reel 30 (left to right) or the fifth reel 34 (right to left) and span adjacent reels.

[0012] Included among the plurality of basic game outcomes are one or more start-bonus outcomes for triggering play of respective bonus games. A start-bonus outcome may be defined in any number of ways. For example, a start-bonus outcome occurs when a specialstart-bonus symbol or a special combination of symbols appears on one or more of the reels 30-34. The start-bonus outcome may require the combination of symbols to appear along an active pay line, or may alternatively require that the combination of symbols appear anywhere on the display regardless of whether the symbols are along an active pay line. The appearance of a start-bonus outcome causes the CPU to shift operation from the basic game to the appropriate bonus game.

[0013] The bonus games have a game show theme and preferably include randomly selected pricing indicia representing the price of one or more fictional or nonfictional objects. The bonus games are depicted on the visual display 12 or a secondary video display. Any payout awarded to the player in a bonus game is preferably based on one or more of the prices in the bonus game. A price may represent a number of credits or a multiplier applied to the total bet or line bet. Alternatively, the price may be broken down into individual digits that are added to each other or multiplied by each other to yield a number of credits or a multiplier applied to the total bet or line bet. Examples of such bonus games are described below.

[0014] Bonus Game #1: Referring to FIG. 4, the numbers in the price 100 of a fictional object such as a car are placed into a depicted bag 102, along with a predetermined number of strikes (e.g., three strikes). Using the touch screen or button panel, the player proceeds

40

50

to successively draw numbers and/or strikes from the bag. If the player draws a number, the drawn number is placed in its correct position among the digits representing the price of the object. Alternatively, the CPU may randomly place the drawn number in one of the positions among the digits representing the price of the object. If the drawn number is placed in the incorrect position, the number is placed back into the bag. The player can keep drawing from the bag until all of the strikes have been drawn. The number of drawn strikes is shown on a strike meter 104. If the player draws all of the numbers in the price of the object before drawing all of the strikes, the player is awarded a payout. If the player draws the predetermined number of strikes before drawing all of the numbers in the price of the object, the player may be awarded no payout or a consolation payout. To modify the payback percentage of the bonus game, the number of strikes initially placed in the bag may be varied and a drawn strike may be placed back into the bag.

[0015] Bonus Game #2: Referring to FIG. 5, the display depicts a predetermined number (e.g., three) of strings 110 of visible digits. The strings may have different lengths (e.g., different numbers of digits). Each string of digits may also represent the price of an associated fictional object. In one embodiment, none of the digits in one string are among the digits in the other strings. Alternatively, the strings may have one or more digits in common. The display also depicts a plurality of cards 112. Each of the cards is associated with one of the digits 0-9. The digit associated with a card is initially concealed from view but is revealed upon selection of the card by the player. The player selects the cards one at a time to reveal their associated digits. Any matching digits in the strings are highlighted. The game ends when all of the digits in one of the strings are highlighted. The player is awarded a payout based on the completed string. In one embodiment, one or more digits in one or more of the strings may be highlighted prior to any of the cards being selected by the player.

[0016] In an alternative embodiment, the digits in the strings 110 are initially concealed, and the digits associated with the cards 112 are initially visible. In response to one of the numbered cards being selected by the player, any matching digits in the strings are revealed.

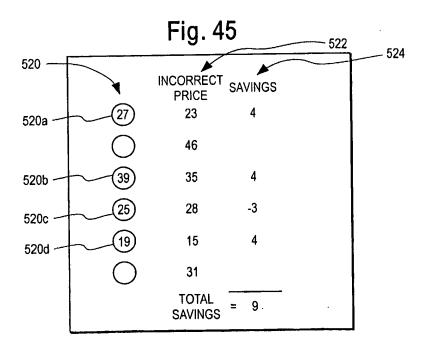
[0017] Bonus Game #3: Referring to FIG. 6, the display depicts a predetermined number of indicia 120 and multipliers 122 ranging from one to ten. The indicia may, for example, be blank cards or fictional objects. Each indicia initially conceals a respective price from view. The player selects one of the indicia and any one of the multipliers to be applied to the selected indicia. The selected indicia 120a then reveals its associated price and a product of that price and the selected multiplier 122a. If the product is within a predetermined range (e.g., between 120 and 150) set at the commencement of the bonus game, the player hits the bullseye 124 and is awarded a payout based on the product or the price associated with the selected indicia. If the product is not

within the predetermined range, the player is outside the bullseye 124 and is given two more opportunities to select an indicia (different from any previously selected indicia) and any one of the multipliers to yield a product within the predetermined range. If after three opportunities the product is not within the predetermined range, the player may nonetheless be awarded a consolation payout if (1) any of the three selected indicia is associated with a bonus resource such as a hidden WIN symbol and (2) the sum of the prices associated with the respective selected indicia is under a predetermined threshold (e.g., 75). The consolation payout may be based on the sum of the prices or the price associated with the selected indicia that hid the WIN symbol.

[0018] Bonus Game #4: Referring to FIG. 7, the display depicts a standard deck 130 of 52 playing cards and the price 132 of a fictional object 134 in terms of a credit amount. The credit values of the cards are as follows: number cards (2 through 10) are worth 10 times face value (e.g., 2 is worth 20 credits, 3 is worth 30 credits, and so on); face cards (Jack, Queen, and King) are worth 100 credits; and Aces are worth 10 credits or 110 credits. The player initially selects a card 136 from the deck 130 to determine how close the player must come to the price 132 to be awarded a payout. Using the same deck 130 or a new deck, the player then selects cards from the deck 130, one at a time, adding the credit values of the selected cards 130a, 130b, 130c, and 130d. If after any selection the sum of the credit values is within the range established by the first selected card 136 without exceeding the price 132, the player is awarded a payout based on the price 132. If the sum of the credit values exceeds the price 132, the player may be awarded a consolation payout based, for example, on the credit value of the last selected card.

[0019] In one embodiment, Aces are wild and result in an immediate payout. In another embodiment, the standard deck of playing cards is replaced with a plurality of indicia that initially conceal respective credit values that are revealed upon selection. In a further embodiment, the price of the fictional object is initially concealed from view but the player is informed that the price is a credit amount randomly selected to be within a certain range. As the player selects cards from the deck. one at a time, adding the credit values of the selected cards, the player must decide after each selection whether the player wishes to stop or select another card. In response to stopping, the price of the object is revealed and it is determined whether or not the sum of the credit values of the selected cards is within the range established by the first selected card without exceeding the revealed price.

[0020] Bonus Game #5: Referring to FIG. 8, the display depicts a one-minute timer 140, first and second prices 142, 144 of fictional objects 146, 148, a plurality of first indicia 150, and a plurality of second indicia 152. The plurality of first indicia 150 initially conceal respective prices that are revealed upon selection. At least one



of the prices associated with the first indicia matches the first price. Likewise, the plurality of second indicia 152 initially conceal respective prices that are revealed upon selection. At least one of the prices associated with the second indicia matches the second price. The player is prompted to select the first indicia 150, one at a time, until revealing a price that matches the first price 142. Each selection removes a predetermined number of seconds (e.g., 5 seconds) from the timer 140, which starts at one minute. If time still remains on the timer, the player is prompted to select the second indicia 152, one at a time, until revealing a price that matches the second price 144. Once again, each selection removes the predetermined number of seconds from the timer 140. The game ends when either the timer 140 reaches zero or the second match has been achieved, whichever occurs first. The player is awarded a base payout based on any matched prices and optionally a supplemental payout based on the amount of time elapsed on the timer 140. The less time elapsed on the timer 140, the greater the supplemental payout.

[0021] The plurality of first indicia 150 and the plurality of second indicia 152 may each be modified to include a high/low feature. For example, the plurality of first indicia 150 may be arranged in a ladder where the concealed prices associated with the first indicia progressively increase from the bottom to the top of the ladder. In response to selecting one of the first indicia in the ladder, the selected indicia may reveal its respective price and, if not a match, the player may be prompted to select another first indicia higher or lower on the ladder, depending upon whether the price associated with the previously selected indicia was lower or higher than the first price.

[0022] Bonus Game #6: Referring to FIG. 9, the display depicts a plurality of indicia 160 and a "danger" price 162. The plurality of indicia 160 initially conceal respective prices that are revealed upon selection. One of the concealed prices matches the "danger" price 162. The player is prompted to select a predetermined number of the indicia, one at a time. If none of the selected indicia 160a, 160b, and 160c reveal the price matching the "danger" price 162, the player is awarded a payout based on the prices associated with the selected indicia and/or the "danger" price. In one embodiment, the plurality of indicia 160 include four indicia, and the predetermined number of indicia to be selected is three. [0023] Bonus Game #7: Referring to FIG. 10, the display depicts a string 170 of concealed digits representing the price of a fictional object. The player then executes multiple rolls of a die 172 depicted on the display. Each roll is associated with a respective concealed digit in the string. For example, if the series 170 includes four digits, then the die 172 is rolled four times with the first roll being associated with the first digit, the second roll being associated with the second digit, the third roll being associated with the third digit, and the fourth roll being associated with the fourth digit. If the rolled die 172

lands on a number matching the respective concealed digit, the concealed digit is revealed. If the rolled die 172 lands on a number that does not match the respective concealed digit, the player selects whether the concealed digit is higher or lower than the number on the rolled die. For example, the number on the rolled die 172 may be represented on a die number display 174, and the player may touch the display either above or below the die number display 174 to indicate the player's selection as to whether the concealed digit is higher or lower than the number on the rolled die.

[0024] The game ends if (1) the rolled die 172 lands on a number that does not match the respective concealed digit and (2) the player incorrectly selects that the concealed digit is higher or lower than the number on the rolled die 172. In one embodiment, the player is only awarded a payout if the player successively unveils each digit in the string without making an incorrect high/low selection. In another embodiment, the player is awarded a payout based on each "correct" digit in the string that is revealed by matching or making a correct high/low selection.

[0025] The numbers on the die and the concealed digits preferably fall within the same range of numbers. For example, the die may be a standard six-sided die with numbers on the die and the concealed digits ranging from 1 to 6.

[0026] Bonus Game #8: Referring to FIG. 11, the display depicts a price 180 of a fictional object 182, as well as a plurality of indicia 184 initially concealing respective prices that are revealed upon selection. One of the concealed prices matches the price 180 of the object 182. Based on the outcome of a preliminary game, the player earns a number of selections of the indicia and is prompted to make such selections, one at a time. If any of the selected indicia 184a, 184b reveal a price matching the price 180 of the object 182, the player is awarded a payout based on the prices associated with the selected indicia and/or the price of the object. In one embodiment, the plurality of indicia 184 include five indicia, and the player can earn up to four selections of the five indicia.

[0027] The preliminary game for earning a number of selections of the indicia may take on various forms. First, the preliminary game may include four spins of simulated slot reel having alternating first and second symbols. If the slot reel lands on a first symbol a selection is awarded, but if the slot reel lands on a second symbol a selection is not awarded. Second, the preliminary game may include multiple pairs of indicia where each pair of indicia initially conceals respective first and second symbols that are revealed upon selection. The player is prompted to select one indicia in each pair and is awarded a selection for each revealed first symbol. Third, the preliminary game may include a plurality of indicia initially concealing a respective number that is revealed upon selection. The player is prompted to select one of the plurality of indicia and is awarded a

20

35

number of selections equal to the revealed number. Fourth, the preliminary game may be a high/low game including a plurality of target prices and an indicia associated with each price. The indicia conceals a price that is higher or lower than the associated target price. For each of the plurality of target prices, the player is prompted to select whether the concealed price of the associated indicia is higher or lower than the associated target price. The player earns one selection for each correct choice of higher or lower.

[0028] Bonus Game #9: Referring to FIG. 12, the display depicts a string 190 of two digits, a string 192 of three digits, and a string 194 of four digits. The digits in the two-digit string 190 are initially visible, while one of the digits in each of the three- and four-digit strings 192 and 194 is initially concealed. The concealed digit in the three-digit string 192 matches one of the two digits in the two-digit string 190, and, similarly, the concealed digit in the four-digit string 194 matches one of the three digits in the three-digit string 192.

[0029] The player is prompted to select one of the two digits in the two-digit string 190. If the selected digit 190a does not match the concealed digit in the three-digit string 192, the player may be awarded no payout or a consolation payout. If, however, the selected digit 190a matches the concealed digit in the three-digit string 192, the player can either (1) stop and accept a payout based on the three-digit string 192 and optionally the two-digit string 190 or (2) risk the payout and select one of the three digits in the three-digit string 192. If the selected digit in the three-digit string 192 does not match the concealed digit in the four-digit string 194, the player may be awarded no payout or a consolation payout. If, however, the selected digit matches the concealed digit in the four-digit string 194, the player may be awarded a payout based on four-digit string 194 and optionally the two- and three-digit strings 190 and 192. When the player is awarded a payout based on a string of digits, the payout may, for example, be a credit value represented by the string of digits or a multiplier equal to the sum or product of the string of digits and then applied to the player's initial wager.

[0030] Bonus Game #10: Referring to FIG. 13, the display depicts a plurality of indicia 200 initially concealing respective prices that are revealed upon selection. The prices range from a lowest price to a highest price, but the prices are randomly distributed among the indicia 200 so it is not known which indicia 200 are associated with which prices. The player is prompted to select a predetermined number of the indicia. If the revealed prices associated with the selected indicia 200a, 200b, and 200c are higher than each of the prices associated with the unselected indicia, the player is awarded a payout based, for example, on the revealed prices. In one embodiment, the plurality of indicia 200 include six indicia and the predetermined number of indicia selected is three.

[0031] Bonus Game #11: Referring to FIG. 14, the

display depicts a plurality of indicia 210 initially concealing respective prices that are revealed upon selection. The prices range from a lowest price to a highest price, but the prices are randomly distributed among the indicia 210 so it is not known which indicia 210 are associated with which prices: The player is prompted to successively select the indicia 210 until revealing a price that is not higher than the price associated with the immediately preceding selection. In other words, the player is permitted to continue selecting indicia 210 until a lowest-to-highest sequence of revealed prices is broken. Alternatively, the player may be permitted to continue selecting indicia until some other sequence, such as a highest-to-lowest sequence, is broken.

[0032] The display also depicts a miniature golf hole 212 with a plurality of locations 214 from which a putt may be attempted. The number of locations 214 is equal to the number of indicia in the plurality of indicia, and the locations progressively range from farthest to closest to the hole 216. In response to selecting an indicia 210a revealing a price that breaks a desired sequence (e.g., lowest-to-highest sequence), the player attempts a putt from one of the locations by pressing an on-screen "putt" key or the "spin reels" push-button. The location 214 from which the putt is attempted is determined by the number of prices in the correct sequence. For each price in the correct sequence, the putt is attempted one location closer to the hole. For example, if the number of prices in the correct sequence is three as illustrated, the putt is attempted from the third farthest location. The outcome of the putt is randomly determined by the CPU but weighted such that the putt is more likely to be successful as it is attempted from locations closer to the hole 216.

[0033] The player may be awarded a base payout based on the revealed prices in the correct sequence and a supplemental payout for making the putt.

[0034] Bonus Game #12: Referring to FIG. 15, the display depicts a series of hurdles 220, a pair of indicia 222 associated with each hurdle 220, and a price 224 attached to a hurdler 226. The hurdler begins at a starting line 228. The pair of indicia 222 conceal respective prices, one of which is greater than the price 224 attached to the hurdler 226 and one of which is less than the price 224 attached to the hurdler 226. The player is prompted to select one indicia in each pair 222. The selected indicia 222a, 222b, 222c is identified but does not yet reveal its associated price. In response to pressing an onscreen "start" key or the "spin reels" push-button, the hurdler 226 attempts to jump each hurdle 220. The price associated with the selected indicia 222a, 222b, 222c for a hurdle 220 is revealed as the hurdler 226 attempts to jump that hurdle 220. The hurdler 226 knocks over the hurdle 220 if the price associated with the selected indicia for that hurdle is greater than the price 224 attached to the hurdler 226. The hurdler 226 successfully clears the hurdle 220 if the price associated with the selected indicia is less than the price 224 attached

to the hurdler 226. The game ends when the hurdler 226 knocks over any of the hurdles 220.

[0035] The player is awarded a payout for each cleared hurdle. This payout may, for example, be based on the price attached to the hurdler, the price associated with the indicia selected by the player for the cleared hurdle, and/or the price associated with the pair of indicia associated with the cleared hurdle. A supplemental payout may be awarded for successfully clearing all of the hurdles.

[0036] Bonus Game #13: Referring to FIG. 16, the display depicts a string 230 of digits representing the price of a fictional object. A group of indicia 232 are associated with each digit and initially conceal respective digits. In the illustrated embodiment, each group 232 contains five indicia. The player is prompted to successively select one indicia from each group 232. The selected indicia 232a, 232b in each group reveals its associated digit upon selection. The difference (subtraction) between the digit in the string and the corresponding revealed digit is subtracted from a bank or meter 234 that initially contains a predetermined number (e.g., 10). If the bank still contains a positive number after subtracting the differences between the digits in the string and the corresponding revealed digits, the player is awarded a payout based on the string of digits, the revealed digits associated with the selected indicia, and/or the number remaining in the bank. If, however, the bank falls to zero or below zero, the player may nonetheless be awarded a consolation payout based, for example, on the digits in the string and/or the revealed digits up to the point that the bank remained above zero.

[0037] Bonus Game #14: Referring to FIG. 17, the display depicts a plurality of indicia 240 initially concealing respective symbols that are revealed upon selection. One of the indicia conceals a picture of the front half of a fictional object (e.g., a car), another indicia 240a conceals a picture of the back half of the object, and the remaining indicia 240b, 240c conceal a "\$" symbol and preferably a small credit amount or multiplier with the "\$" symbol. The player is prompted to successively select the indicia, one at a time, until revealing either a predetermined number (e.g., 4) of "\$" symbols or both halves of the object, whichever occurs first. If the predetermined number of "\$" symbols are revealed before revealing both halves of the object, the player is awarded a small payout based, for example, on a sum of the credit amounts or multipliers associated with the revealed "\$" symbols. If, however, both halves of the object are revealed before revealing the predetermined number of "\$" symbols, the player is awarded a larger payout that, for example, may be a flat credit amount or may be based on the sum of the credit amounts or multipliers associated with the "\$" symbols of both the selected and unselected indicia.

[0038] Bonus Game #15: Referring to FIG. 18, the display depicts a plurality of indicia 250 such as three indicia. The indicia initially conceal respective prices

that are revealed upon selection. The player is prompted to select one of the indicia. If the revealed price associated with the selected indicia 250a is greater than the prices associated with the unselected indicia, the player is awarded a payout based on all the prices. Otherwise, the player may be awarded a consolation payout based on only the revealed price associated with the selected indicia.

[0039] Bonus Game #16: Referring to FIG. 19, the display depicts a plurality of indicia such as a pair of indicia 260, one of which conceals a price matching a price 262 depicted on the display. The player is prompted to select one of the indicia. If the selected indicia 260a reveals a price matching the depicted price 262, the player is awarded a payout based on the price associated with all of the indicia. If, however, the selected indicia reveals a price that does not match the depicted price, the player is awarded either no payout or a consolation payout based, for example, on only the revealed price.

[0040] Bonus Game #17: Referring to FIG. 20, the display depicts a pair of prices 270 and 272 and a plurality of indicia such as four indicia 274 for each price. Each indicia initially conceals a respective price that is revealed upon selection. At least one of the concealed prices in each plurality of indicia 274 matches the corresponding price in the pair of prices 270 and 272. The player is prompted to successively select the indicia in the plurality of indicia 274 for the first price 270 until revealing a price 274a matching the first price 270. For each selection that does not produce a match, a "coin" is deducted from an onscreen meter 276 that may, for example, initially contain four coins. If the meter 276 still contains at least one coin when a match is produced, the player is prompted to successively select the indicia in the plurality of indicia 274 for the second price 272 until either revealing a price matching the second price 272 or reducing the meter to no coins, whichever occurs first. The player is awarded a payout based, for example, on each matched price and the number of coins remaining in the meter. For example, producing two matches before running out of coins in the meter may generate a payout equal to the sum of the two matched prices multiplied by the number of coins remaining in the meter.

[0041] Bonus Game #18: Referring to FIG. 21, the display depicts four strings 280 of concealed digits representing prices of respective fictional objects. Each string includes three concealed digits. The player is prompted to select two of the strings, which reveal their respective digits upon selection. Five of the six revealed digits of the selected strings 280a, 280b are used to form the highest ranking poker hand 282 possible, where 9's are high, 0's are low, and straights and flushes do not count. The player is then prompted to decide whether to keep the poker hand or exchange it for the house's poker hand, which is comprised of the concealed digits in the two unselected strings 280c, 280d. After this de-

25

30

lect one of the plurality of indicia and is awarded a

number of selections equal to the revealed number.

cision is made, the concealed digits in the two unselected strings are revealed and, similarly, five of the six revealed digits are used to form the highest ranking poker hand possible. The player is awarded a payout based on all four digit strings if the hand the player decided to keep ranks the same as or higher than the house's hand. In an alternative embodiment, the digits are modified to be standard playing cards ranging from 2 to Ace where straights and flushes do count.

[0042] Bonus Game #19: Referring to FIG. 22, the display depicts a punchboard or array 290 of indicia initially concealing respective credit amounts that are revealed upon selection. The credit amounts may, for example, range from 50 credits to 10,000 credits. If there are forty-nine indicia, the distribution of credit amounts may be as follows: 10 indicia hiding 50 credits, 10 indicia hiding 100 credits, 10 indicia hiding 250 credits, 10 indicia hiding 500 credits, 4 indicia hiding 1000 credits, 3 indicia hiding 5000 credits, and 2 indicia hiding 10,000 credits. The player may be notified of this distribution prior to playing the game. Based on the outcome of a preliminary game, the player earns a number of selections of the indicia and is prompted to make such selections, one at a time. The number of selections remaining is shown on a selections meter 292. After each selection, the player is given the option to keep the credit amount associated with the selected indicia or return the credit amount in hopes of selecting an indicia with a higher credit amount. If the player elects to keep the credit amount, the game ends and no more selections are made. If the player elects to return the credit amount, the player makes another selection. The player cannot return the credit amount if the player has used up all of his or her earned selections.

[0043] A predetermined number (e.g., 4) of the fifty indicia may automatically award a free selection. If the player selects an indicia that awards a free selection, the player is prompted to select an additional indicia. The credit amount associated with the additional selected indicia is added on to the credit amount associated with the selected indicia that awarded the free selection to yield a total credit amount that the player can keep or return.

[0044] The preliminary game for earning a number of selections of the indicia may take on various forms. First, the preliminary game may include four spins of simulated slot reel having alternating first and second symbols. If the slot reel lands on a first symbol a selection is awarded, but if the slot reel lands on a second symbol a selection is not awarded. Second, the preliminary game may include multiple pairs of indicia where each pair of indicia initially conceals respective first and second symbols that are revealed upon selection. The player is prompted to select one indicia in each pair and is awarded a selection for each revealed first symbol. Third, the preliminary game may include a plurality of indicia initially concealing a respective number that is revealed upon selection. The player is prompted to se-

higher or lower. [0045] Bonus Game #20: Referring to FIG. 23, the display depicts a predetermined number (e.g., 4) of indicia (fictional objects) 300, the same number of "price tags" 302, and a 45-second timer 304. Each indicia 300 conceals a respective price that matches one of the four displayed price tags 302. The player is prompted to make successive attempts to associate the price tags 302 with the respective indicia 300. Each attempt removes a predetermined number of seconds (e.g., 9 seconds) from the timer 304, which starts at 45 seconds. After each attempt, the display indicates how many matches exist between the price tags 302 and the indicia 300 with which they have been associated by the player. The game ends when either the timer 304 reaches zero or all of the price tags 302 have been correctly associated with the respective indicia 300. The indicia 300 do not reveal their respective prices until the end of the game. Alternatively, any matched prices may be revealed as they occur so that subsequent attempts to associate the price tags 302 with the respective indicia only focus on the unmatched prices and price tags. Due to the relative ease of achieving matches in this alternative embodiment, the length of the timer 304 may be reduced and/or the number of indicia 300 and price tags 302 may be increased. The player is awarded a base payout based on any matched prices and optionally a supplemental payout based on the amount of time elapsed on the timer 304. The less time elapsed on the timer 304, the greater the supplemental payout.

[0046] Bonus Game #21: Referring to FIG. 24, the display depicts a single indicia 310 and a vertical price scale 312 ranging from a lowest price to a highest price. The single indicia 310 conceals a price randomly selected to be somewhere between the lowest price and the highest price on the price scale. In response to pressing an onscreen "start" key 314 or the "spin reels" push-button, a "range finder" 316 having a price range less than the scale's price range is slowly moved from a bottom end toward a top end of the scale 312. The range finder 316 is stopped in response to an onscreen "stop" key 318 being pressed by the player. When the range finder 316 is stopped, the price associated with the single indicia 310 is revealed. If the revealed price falls within the price range covered by the stopped range finder 316, the player is awarded a payout based on the re-

vealed price. In one example, the range finder 316 covers approximately one-fourth of the price scale 312.

[0047] In an alternative embodiment, instead of employing the single indicia, the player initially places a marker somewhere on the price scale, and the range finder is randomly stopped by the CPU along the price scale. If the stopped range finder covers the marker placed by the player, the player is awarded a payout based, for example, on the price identified by the marker. In order that the player does not always place the marker near the top end of the scale, the game may notify the player that the range finder is weighted to more likely stop near the bottom end of the scale than the top end. Also, the payout need not based on the price identified by the marker.

[0048] Bonus Game #22: Referring to FIG. 25, the display depicts a combination safe 320 including a plurality of number dials 322. Each dial includes a set of numbers that may be the same or different from the sets of numbers associated with the other dials. In one embodiment, the safe 320 includes three dials 322 and each dial includes the same set of three numbers. The player is prompted to "guess" the combination of the safe 320 by rotating each dial 322 to a desired number and then to attempt opening the safe 320. If the safe 320 opens, the player is awarded a payout based, for example, on the numbers making up the combination. In one embodiment, the player is given multiple opportunities to guess the combination and is awarded a payout that is reduced for each additional attempt required to open the safe.

[0049] Bonus Game #23: Referring to FIG. 26, the display depicts a plurality of shells 330 such as four shells. A ball is randomly placed under one of the shells 330. Based on the outcome of a preliminary game, the player earns a number of chips 332 for controlling the shells 330 and is prompted to place the chips 332 adjacent to the shells 330 of the player's choice. If the ball is under any of the shells 330 controlled by a chip 332, the player is awarded a payout. If all of the shells are controlled by respective chips and the player guesses which of the shells is hiding the ball, the player is awarded a supplemental payout.

[0050] The preliminary game for earning a number of chips for controlling the shells may take on various forms. First, the preliminary game may include four spins of simulated slot reel having alternating first and second symbols. If the slot reel lands on a first symbol a chip is awarded, but if the slot reel lands on a second symbol a chip is not awarded. Second, the preliminary game may include multiple pairs of indicia where each pair of indicia initially conceals respective first and second symbols that are revealed upon selection. The player is prompted to select one indicia in each pair and is awarded a chip for each revealed first symbol. Third, the preliminary game may include a plurality of indicia initially concealing a respective number that is revealed upon selection. The player is prompted to select one of

the plurality of indicia and is awarded a number of chips equal to the revealed number. Fourth, the preliminary game may be a high/low game including a plurality of target prices and an indicia associated with each price. The indicia conceals a price that is higher or lower than the associated target price. For each of the plurality of target prices, the player is prompted to select whether the concealed price of the associated indicia is higher or lower than the associated target price. The player earns one chip for each correct choice of higher or lower. [0051] Bonus Game #24: Referring to FIG. 27, the display depicts a string 340 of visible digits, as well as a string 342 of concealed digits representing the price of a fictional object. The string 340 of visible digits has one more digit than the string 342 of concealed digits, and the visible string 340 matches the concealed string 342 except for the one extra digit in the visible string 340. The extra digit in the visible string 340 is one of the middle digits 340b, 340c, 340d. If the visible string 340 has five digits, for example, the first and last digits 340a and 340e of the visible string 340 match the first and last digits of the concealed string 342, and two of the three middle digits 340b, 340c, and 340d of the visible string 340 match the two middle digits of the concealed string 342. The player is prompted to select one of the middle digits 340b, 340c, and 340d of the visible string 340 for removal, causing the remaining digits to "squeeze" together into a string of four digits. The concealed string 342 is then revealed. If the two strings match (i.e., because the player removed the non-matching digit from the visible string 340), the player is awarded a payout based, for example, on the four-digit string.

[0052] Bonus Game #25: Referring to FIG. 28, the display depicts the incomplete prices 350 of a number of fictional objects 352. The incomplete prices 350 are each missing (or concealing) one digit such as the tens digit (i.e., second digit to the left of the decimal point). The display also depicts a number of visible digits 354 (number blocks) for completing the prices 350. The player is prompted to associate the visible digits 354 with the respective incomplete prices 350. After being informed how many of the prices 350 are correctly completed, the player is given one or more additional opportunities to re-associate the visible digits 354 with the prices 350. The missing digits of the incomplete prices 350 are not revealed until the end of the game. Alternatively, any correctly completed prices may be identified as they occur so that subsequent attempts to associate the visible digits with the incomplete prices only focus on the prices that have not yet been correctly completed. The player is awarded a base payout based on any correctly completed prices and optionally a supplemental payout based on the number of attempts to correctly complete the prices. The lesser the number of attempts, the greater the supplemental payout.

[0053] Bonus Game #26: Referring to FIG. 29, the display depicts a primary string 360 of concealed digits representing the price of a fictional object. The display

20

25

30

45

[0054] In an alternative embodiment, failure to match any one of the revealed digits in the primary string with the selected visible digit in the corresponding secondary string results in no payout. However, prior to revealing the concealed digits in the primary string, the player is given the option of accepting a smaller payout based on only the secondary strings of visible digits and forfeiting the possibility of obtaining a significantly larger payout based on the primary string of digits.

[0055] Bonus Game #27: Referring to FIG. 30, the display depicts a number of primary strings 370 of concealed digits and a corresponding number of secondary strings 372 of visible digits. In one embodiment, there are three primary strings 370 and three corresponding secondary strings 372, and each secondary string 372 includes the same digits as the corresponding primary string 370, albeit possibly scrambled, plus one extra digit. Also, the primary strings 370 progressively increase in length such that the first primary string may include one digit, the second primary string may include two digits, and the third primary string may include three digits. The player is prompted to make successive attempts at reconfiguring each secondary string 372 (e.g., by eliminating one digit and reordering the remaining digits if desired), starting with the first secondary string, until the secondary string matches the corresponding primary string. The display may depict a plurality of possible configurations 374 for each secondary string 372 and, for each attempt, prompt the player to select one of the possible configurations 374. After each attempt, the game may generate a buzzer sound for failing to achieve a match, or generate a confirmation tone and reveal the concealed digits in the primary string 370 upon achieving a match. The player only proceeds to the next secondary string upon correctly reconfiguring the preceding secondary string so that it matches its corresponding primary string. In order that the player does not waste any of his or her attempts, the game only allows each configuration 374 of a secondary string 372 to be attempted once.

[0056] The player is awarded a payout based on each match and possibly based on the number of attempts

required to obtain each match. For example, the lesser the number of attempts to achieve a match, the greater the payout. The game may limit the total number of attempts for achieving all three matches to a predetermined number such as ten. The number of attempts remaining may be shown on an attempts meter 376.

[0057] Bonus Game #28: Referring to FIG. 31, the display depicts a string 380 of concealed digits representing the price of a fictional object. The player is prompted to select one of a pair of selectable digits 382 associated with each of the concealed digits. If the selected digits match the associated concealed digits, which are revealed following the player's selections, the player is awarded a payout based, for example, on the price represented by the digit string. In one embodiment, one of the digits 380a in the string 380 is given free, i. e., revealed without requiring the player to match it with a selected digit.

[0058] Bonus Game #29: Referring to FIG. 32, the display depicts a plurality of fictional objects 390 associated with concealed prices. The player is prompted to select the objects 390 one at a time and place them on one side or the other of a price scale 392. The concealed prices of the objects 390 are then revealed. If the sum of the prices on one side of the scale 392 is within a predetermined amount of the sum of the prices on the other side of the scale 392, the player is awarded a payout based, for example, on the prices associated with all of the fictional objects 390. Alternatively, the player may be awarded a payout based on only the higher of the two aforementioned sums, regardless of whether or not the sums are within the predetermined amount.

[0059] Bonus Game #30: Referring to FIG. 33, the display depicts a pair of strings 400 of concealed digits representing the "actual prices" of a pair of fictional objects 402. The display also depicts a pair of strings 404 of visible digits representing the "bargain prices" of the pair of objects 402. The player is prompted to select one of the strings 404 of visible digits. If the selected string represents a bigger bargain, i.e., the difference between the selected bargain price and its corresponding actual price is greater than the difference between the unselected bargain price and its corresponding actual price, the player is awarded a payout based on both of the actual prices.

[0060] Bonus Game #31: Referring to FIG. 34, the display depicts a plurality of primary strings 410 of concealed digits representing the "actual prices" of respective fictional objects. For each primary string of concealed digits, the display depicts a group of secondary strings 412 of visible digits, such as five secondary strings, representing possible "estimated prices" of the associated object. The player is prompted to select one secondary string 412 in each group of secondary strings 412 of visible digits. The concealed digits in the primary strings 410 are then revealed. If the sum of the selected estimated prices (selected secondary strings) is within a predetermined amount of the sum of the actual prices

(primary strings), the player is awarded a payout based, for example, on the actual prices.

[0061] Bonus Game #32: Referring to FIG. 35, the display depicts a "target price" and a plurality of fictional objects 420 such as six fictional objects, which reveal an associated price upon selection. The prices associated with four of the six objects 420 are below the target price. The player commences the game with an initial payout such as one credit. The player is prompted to successively select the objects 420 one at a time. For each selected object that reveals a price less than the target price, the payout accumulated to that point in the game is multiplied by ten. The game ends either when all four objects below the target price are selected (resulting in an accumulated payout equal to the initial payout multiplied by 10,000) or an object above the target price is selected, whichever occurs first. If an object above the target price is selected, the player is awarded the payout accumulated to that point in the game unless the player was attempting to select the fourth object below the target price, in which case the player loses all of the accumulated payout. After selecting the third object below the target price, the player is offered an opportunity to guit the game and thereby settle for an accumulated payout equal to the initial payout multiplied by 1000.

[0062] Bonus Game #33: Referring to FIG. 36, the display depicts a plurality of payout "locks" 430 which, if unlocked, reveal respective payouts awarded to the player. Based on the outcome of a preliminary game, the player selects a number of keys 432 for unlocking one or more of the locks 430. For example, there may be three locks 430 and five keys 432. One of the five keys 432 may be a master key capable of unlocking all three locks 430; three of the five keys 432 may each be capable of unlocking only one respective lock 430; and the remaining key 432 may be incapable of unlocking any of the locks 430. The preliminary game may allow the player to select up to two keys 432 from the five keys 432 shown on the display.

[0063] Referring to FIG. 37, the preliminary game for earning a number of keys for unlocking the locks may be played as follows. The display depicts a pair of two-digit strings 434 with concealed digits representing respective prices of fictional objects. A three-digit string 436 with visible digits is associated with each two-digit string 434. The player is prompted to select either the first two or the last two digits in each three-digit string 436. The concealed digits in the two-digit strings 434 are then revealed. If the selected pair of digits in a three-digit string 436 match the revealed digits in the corresponding two-digit string 434, the player is prompted to select one of the keys. The preliminary game may also be of the type discussed above in connection with bonus game #8.

[0064] Bonus Game #34. Referring to FIG. 38, the display depicts a price 440 of a fictional object and a plurality of indicia 442 initially concealing respective

prices that are revealed upon selection. One of the concealed prices 442 matches the displayed price 440. The player is prompted to select one of the concealed prices 442. Based on the proximity of the selected price 442a and the displayed price 440, a character on the display engages in a number of attempts of an athletic feat. For example, a match between the selected price 442a and the displayed price 440 as shown may be worth four attempts, the next closest selected price may be worth three attempts, and so on. The athletic feat may, for example, be a high jump, a baseball pitch, a football throw, a basketball lay-in, a dart throw, etc. The CPU randomly determines whether or not the character successfully accomplishes the athletic feat.

[0065] Bonus Game #35: Referring to FIG. 39, the display depicts a string 450 of concealed digits representing the correct price of a fictional object. The display also depicts a string 452 of visible digits representing the incorrect price of the fictional object. The number of digits in the two strings 450 and 452 is the same. Each visible digit is one away (either one higher or one lower) than the corresponding concealed digit. Using the onscreen "higher" and "lower" keys 454 and 456, the player is prompted to select whether each concealed digit is higher or lower than the corresponding visible digit. After entering the selections, the player is informed how many of his or her selections are correct without revealing the concealed digits. The player may then be provided with one or more opportunities to change his or her selections. After completing the selection process, the concealed digits are revealed and the player is awarded a payout based on any selections that are correct.

[0066] Bonus Game #36: Referring to FIG. 40, the display depicts a 5 x 5 grid 460 of 25 digits and a string 462 of concealed digits representing the price of a fictional object. Starting at the center square 460a of the grid 460, the player is prompted to successively select digits on adjacent squares in an attempt to match successive ones of the concealed digits 462 starting from the leftmost concealed digit. If a selected digit matches the concealed digit under comparison, the player remains on the square containing the selected digit. If, however, the selected digit does not match the concealed digit under comparison, the player returns to the previously occupied square and may be permitted to select a digit on a different adjacent square. Based on the outcome of a preliminary game of the type discussed above in connection with bonus game #8, the player may earn up to three corrective selections. A corrective selection permits a player to select a digit on a different adjacent square in response to selecting a digit that does not match the concealed digit under comparison. The game ends when either all of the concealed digits 462 have been successively matched by the digits selected on the grid 460, or the player has exhausted his or her supply of corrective selections without matching all of the concealed digits 462.

[0067] Bonus Game #37: Referring to FIG. 41, the

display depicts a plurality of fictional objects such as six objects 470. The objects initially conceal respective prices that are revealed upon selection. The objects are priced such that there are three pairs of objects and the objects in each pair are associated with the same price. The player is given two opportunities to select two objects associated with the same price. If the player successfully selects the two objects associated with the same price, the player is awarded a payout based on that price.

[0068] Bonus Game #38: Referring to FIG. 42, the display depicts a plurality of fictional objects 480 such as four objects. Each object is associated with a visible two-digit "incorrect" price 482. The player is prompted to select whether the first digit or the last digit of each two-digit price 482 is correct (e.g., matches a corresponding digit of a concealed two-digit "correct" price 484 that is revealed upon selection of either the first digit or the last digit of the corresponding incorrect price 482). Each correct selection earns a chip 486 to be dropped down a pachinko-type peg board 488. In addition, the player is awarded a free chip at the commencement of the game. The pachinko-type board 488 has a plurality of pegs 490 for randomly directing the chip down the board 488 until it lands in one of a plurality of payout slots 492 at the bottom of the board 488. The payout slots may, for example, include zero, \$100, \$500, \$1000, and \$5000.

[0069] Bonus Game #39: Referring to FIG. 43, the display depicts a plurality of fictional objects 500 such as four objects. Each object 500 is associated with a pair of prices 502 - one correct and one incorrect. The player is prompted to select which of the pair of prices 502 for each object is correct (e.g., matches a concealed "correct" price that is revealed upon selection of one of the corresponding pair of prices 502). Each correct selection earns a skeeball 504 to be rolled down a skeeball ramp 506 and randomly directed into one of three circles 508, such as 50 credits, 100 credits, and "WIN". The "WIN" circle may be associated with either a random payout or an assigned payout determined by the skeeball 504. In addition to possibly assigning a payout to the "WIN" circle, each skeeball 504 may be tied to a specific payout enhancement such as a multiplier or a wild. For example, a first skeeball 504a may be tied to a multiplier of two and may assign a payout of 500 credits to the "WIN" circle such that it generates a payout of 100 credits for landing in the 50 credit circle, 200 credits for landing in the 100 credit circle, and 500 credits for landing in the "WIN" circle. A second skeeball 504b may be "wild" such that when the skeeball lands in either the 50 credit circle or the 100 credit circle, these circles are treated like the "WIN" circle.

[0070] Bonus Game #40: Referring to FIG. 44, the display depicts an array 510 of numbered cards. The array may, for example, include 30 cards with 11 cards initially concealing the letter "W", 11 cards concealing the letter "I", 6 cards concealing the letter "N", and 2

cards concealing the word "WIN". The player starts with two free card selections and, based on the outcome of a preliminary game of the type discussed above in connection with bonus game #8, the player can earn up to three more card selections. The player is then prompted to select cards from the array one at a time to reveal their associated letter or word. The player is awarded a large payout for either revealing the letters "W", "I", and "N" (in any sequence) or revealing the word "WIN". Prior to each selection, the player is given the option to prematurely end the game and collect a smaller payout for each unused selection. For example, if the player is allotted five selections and thus far selected only two cards 510a and 510b that have both revealed the letter "W", the player may elect to "cash in" the remaining three unused selections for smaller payouts instead of going for a larger payout that can only be obtained by revealing the word "WIN" or the letters "I" and "N" with the remaining three unused selections.

[0071] Bonus Game #41: Referring to FIG. 45, the display depicts a plurality of fictional objects 520 and an incorrect price 522 for each object 520. For example, if there are six fictional objects 520, five of the incorrect prices 522 are lower than the correct price and one of the incorrect prices is higher than the correct price. The player is prompted to select four of the six fictional objects 520, which reveal their associated correct prices upon selection as shown. For each selected object 520a, 520b, 520c, and 520d, the incorrect price is subtracted from the associated correct price to yield a positive or negative difference 524. If the differences add up to at least a predetermined threshold ("savings"), the player is awarded a payout.

[0072] Bonus Game #42: Referring to FIG. 46, the display depicts an initial fictional object 530 and three pairs 532, 534, and 536 of additional fictional objects. Each fictional object is associated with a concealed price. The three pairs of fictional objects include a first pair 532, a second pair 534, and a third pair 536. The price of the initial fictional object 530 is greater than the price of one of the fictional objects in the first pair 532 and less than the price of the other fictional object in the first pair 532. Similarly, the price of the higher priced fictional object in the first pair 532 is greater than the price of one of the fictional objects in the second pair 534 and less than the price of the other fictional object in the second pair 534. Finally, the price of the higher priced fictional object in the second pair 534 is greater than the price of one of the fictional objects in the third pair 536 and less than the price of the other fictional object in the third pair 536. The player is prompted to "trade" the initial fictional object 530 for one of the fictional objects in the first pair 532, trade the acquired fictional object in the first pair 532 for one of the fictional objects in the second pair 534, and trade the acquired fictional object in the second pair 534 for one of the fictional objects in the third pair 536. After each trade or after completing all three trades, the concealed prices of the traded objects

are revealed. The player is awarded a payout if the player acquired a higher priced object in each of the three trades. Alternatively, the player may be awarded a payout for each trade in which the player acquired a higher priced object.

[0073] Bonus Game #43: Referring to FIG. 47, the display depicts three fictional objects 540 and four prices 542. Three of the four prices 542 match respective concealed prices associated with the fictional objects 540. One of the four prices 542 is extraneous. The player is provided with a predetermined payout at the start of the game and is prompted to select three of the four prices 542 (e.g., selected prices 542a, 542b, and 542c), after which two of the matching concealed prices 540a and 540b are revealed as shown. The player is then given the option to change his or her third selected price 542c and return the predetermined payout, or leave his or her selection intact. If the player leaves his or her selection intact and it does not match the remaining concealed price 540c, the player forfeits the predetermined payout.

[0074] Bonus Game #44: Referring to FIG. 48, the display depicts a concealed "correct" price 550 and a revealed "incorrect" price 552 for a fictional object. None of the digits in the incorrect price 552 match corresponding digits in the correct price 550. Starting with the first (leftmost) digit in the incorrect price 552, the player is prompted to build a new price from the incorrect price 552 with two selections for the first digit, three selections for the second digit, four selections for the third digit, and five selections for the last digit assuming a four-digit price. For each digit in the incorrect price 552, the player can make up to the allotted number of selections for that digit to select the digit that matches the corresponding digit in the correct price 550. Also, for each digit in the incorrect price 552, the display may depict a plurality of possible digits 554 from which the player must make his or her selections. Every time a selection results in one more matching digit, the player is awarded an additional selection for the next incorrect digit to be changed.

[0075] Bonus Game #45: Referring to FIG. 49, the display depicts a "credit limit" 560 and a plurality of fictional objects 562. The player is prompted to select a predetermined number of the objects 562 whose prices, when added to each other, do not exceed the credit limit. The prices of the objects 562 are revealed either as each object is selected or after all of the objects are selected. In one embodiment, there are five fictional objects 562 and the player is prompted to select three of the five objects. The objects may be priced such that the player must select the three lowest priced objects to win. In the illustrated example, the player has selected the objects 562a, 562b, and 562c, which have revealed respective prices that, when added, are less than the credit limit.

[0076] Bonus Game #46: Referring to FIG. 50, the player is prompted to place three numbered blocks 570 in front of three fictional objects 572, attempting to correctly number them in order of value to win. In one em-

bodiment, the player may be given a second opportunity to place the three numbered blocks 570 if unsuccessful on the first attempt and may be informed after the unsuccessful first attempt as to how many of the numbered blocks 570 were correctly placed.

[0077] Bonus Game #47: Referring to FIG. 51, the display depicts a wheel 580 bearing eight sets of twodigit numbers near the periphery of the wheel 580. The player is prompted to spin the wheel by pressing an onscreen "spin" key 582 or the "spin reels" push-button. When the spinning wheel 580 comes to a stop, the player wins if the two sets of two-digit numbers at the top of the stopped wheel 580 match (when viewed in their displayed order) a concealed price 584 of a fictional object. [0078] Bonus Game #48: Referring to FIG. 52, the display depicts a number of fictional objects 590 and the same number of shopping bags 592. Each shopping bag is associated with a visible price and contains a duplicate of one of the fictional objects 590. The player is prompted to successively match the fictional objects 590 to the shopping bags 592 containing the respective duplicates. The player is awarded a payout for each correct match. In one embodiment, the game is played as a double-or-nothing game in which the each successive match doubles the payout but a single mismatch causes the player to lose the entire payout. When the game is played as a double-or-nothing game, the player is given the option of stopping after each match and keeping the payout awarded to that point in the game.

[0079] Bonus Game #49: Referring to FIG. 53, the display depicts a row of five face-down playing cards 600, one of which conceals a joker. Based on the outcome of a preliminary game of the type discussed above in connection with bonus game #8, the player can earn up to four card selections. The player is then prompted to select cards from the five cards shown until the player's selections have been exhausted. The selected cards are "turned over" as shown to reveal their respective indicia. The player is awarded a payout if one of the
 turned-over cards reveals the joker.

[0080] As an alternative to the preliminary games discussed above in connection with bonus game #8, the preliminary game may include four fictional objects. Each object is associated with one of a pair of prices. The player is prompted to select one of the pair of prices. If the selected price is correct (e.g., matches a concealed price for the object), the player earns a card selection.

[0081] Bonus Game #50: Referring to FIG. 54, the display depicts five dice 610 at the start of the game. The player is given one free roll of the five dice 610 and can earn up to two more rolls based on the outcome of a preliminary game of the type discussed above in connection with bonus game #8. Alternatively, the preliminary game may involve three fictional objects depicted on the display. The price of the first fictional object is shown and the player is prompted to select whether the price of the second fictional object is higher or lower than

20

30

the displayed price of the first fictional object. After revealing the price of the second fictional object, the player is prompted to select whether the price of the third fictional object is higher or lower than the displayed price of the second fictional object. For each correct selection, the player earns another dice roll for a maximum possibility of three rolls of the dice.

[0082] The five dice 610 are identical. Each die includes a picture of a major jackpot (or "JACKPOT") on three sides, a small payout (e.g., 25 credits) on the fourth side, a medium payout (e.g., 50 credits) on the fifth side, and a large payout (e.g. 75 credits) on the sixth side. The major jackpot is significantly greater than the large payout. The player is prompted to roll the dice by pressing an onscreen "roll dice" key 612 or the "spin reels" push-button. To win the major jackpot, the player must roll the major jackpot on all five dice 610. If, however, at least one of the rolled dice 610 does not show the major jackpot, the player is given the option of (1) keeping the payouts shown on the die/dice and end the game or (2) "freezing" any die/dice showing the major jackpot using an associated "freeze" key 614 and rolling the remaining dice if the player still has one or more rolls remaining. If the player obtains the major jackpot on all five dice 610 after exhausting his or her rolls, the player is awarded the major jackpot. Otherwise, the player is awarded the payouts shown on the five dice 610 after exhausting his or her rolls.

[0083] Bonus Game #51: Referring to FIG. 55, the display depicts a game board 620 include a first digit 622 at the top, a last digit 630 at the bottom, and a plurality of horizontal strings 624, 626, 628 of digits between the first and last digits 620 and 630. In one embodiment, the plurality of horizontal strings of digits includes three strings - one string 624 with two digits and a pair of strings 626 and 628 with three digits apiece. The last digit 630 is aligned vertically with the first digit 622. The display also depicts a fictional object 632 associated with a concealed price 634. The concealed price 634 is comprised of the aforementioned first and last digits 622 and 630, as well as one digit from each of the plurality of strings 624, 626, 628 of digits. The player is prompted to select one digit in each string 624, 626, 628 to be vertically aligned with the first and last digits 622 and 630. To facilitate the selections, the horizontal strings 624, 626, 628 of digits are preferably slidable in a horizontal direction. If the first digit 622, the last digit 630, and the digits from the horizontal strings 624, 626, 628 aligned vertically the first and last digits 622 and 630 form a price matching the concealed price 634 of the fictional object 632, the player is awarded a payout based, for example, on the price 634 of the fictional object and the horizontal strings 624, 626, 628 of digits. If any selected digit from the horizontal strings 624, 626, 628 is incorrect, the player is shown how many digits are correct (e.g., 1, 2, or 3 in the case of three horizontal strings 624, 626, 628) and is offered one more opportunity to select the digits from the horizontal strings

624, 626, 628. In one embodiment, when the player is shown how many digits are correct, the player is also shown which of the digits are correct to increase the probability of winning.

[0084] Bonus Game #52: Referring to FIG. 56, the display depicts three fictional objects 640 and a string of nine digits 642. The three fictional objects 640 are associated with respective concealed two-digit, three-digit, and four-digit prices 644. The player is prompted to divide the string of nine digits 642 into three non-over-lapping sub-strings in an effort to match the respective two-digit, three-digit, and four-digit prices 644 of the fictional objects 640. The player may be afforded multiple attempts to divide the string of nine digits 642 into three sub-strings and may be informed as to the number of matches achieved by each attempt. The player is awarded a payout for each match achieved by the player's final attempt.

[0085] Bonus Game #53: Referring to FIG. 57, the display depicts a plurality of fictional objects 650, such as three fictional objects, and a visible price 652 for each object 650. One of the visible prices 652 is incorrect (e. g., does not match a concealed price 654). The player is prompted to select which visible price 652 is incorrect and is awarded a payout for selecting the incorrect price. [0086] Bonus Game #54: Referring to FIG. 58, the display depicts a fictional object 660 and a price 662 with one digit 662a missing. The player is prompted to fill in the missing digit by selecting one of three choices 664. The player is awarded a payout for selecting the digit that correctly completes the price 662 (e.g., the completed price matches a concealed price for the fictional object).

[0087] Bonus Game #55: Referring to FIG. 59, the display depicts a plurality of fictional objects 670, such as four objects, associated with concealed prices 672 that are revealed upon selection as shown. The player is prompted to select three of the four objects 670 as shown and is awarded a payout if the sum 676 of the revealed prices 672 associated with the selected objects 670a, 670b, 670c exceeds a predetermined threshold 674.

77

1 1 35

[0088] Bonus Game #56: Referring to FIG. 60, the display depicts a fictional object 680 and a pair of two-digit strings 682a-b. The player is prompted to place the pair of two-digit strings 682a-b in a desired order to create a four-digit price (e.g., "53" and "46" could be arranged as "5346" or "4653"). If the four-digit price matches a concealed price 684 associated with the fictional object 680, the player is awarded a payout.

[0089] Bonus Game #57: Referring to FIG. 61, the display depicts a primary fictional object 690 and a plurality of secondary fictional objects 692 such as three secondary objects. The player is prompted to select one of the three secondary objects 692, which reveals its price 694 upon selection as shown. If the price 694a of the selected object 692a matches the price 696 of the primary fictional object 690, the player is awarded a pay-

out. In the illustrated example, the price 694a of the selected object 692a did not match the price 696 of the primary object 690.

[0090] Bonds Game #58: Referring to FIG. 62, the display depicts a pair of fictional objects 700 and a pair of prices 702 associated with the respective objects. The player is prompted to either switch the prices 702 or keep them intact. After the player makes his or her decision, if the prices 702 are correct (e.g., match concealed prices 704 associated with the fictional objects 700), the player is awarded a payout.

[0091] Bonus Game #59: Referring to FIG. 63, the display depicts four digits in the price 710 of a fictional object 712. The four digits are displayed in two groups of two 710a and 710b; however, the initial setting of the digits is incorrect (e.g., does not match the price of the fictional object). The player is prompted to either (1) reverse the order of the two digits in the first group 710a (e.g., "58" would become "85"), (2) reverse the order of the two digits in the second group 710b, or (3) reverse the order of the two digits in each group 710a and 710b. If the re-ordered digits are correct (e.g., match the concealed price 714 of the fictional object 712), the player is awarded a payout.

[0092] Bonus Game #60: Referring to FIG. 64. the display depicts a plurality of fictional objects 720a-c such as three fictional objects. For the first fictional object 720a, the display depicts two prices 722a-b. The player is prompted to select which of the two displayed prices 722 is closest to the actual price 724 of the first fictional object 720a without exceeding the actual price 724. Both of the displayed prices 722 may be under the actual price 724, or one of the displayed prices 722 may be over the actual price 724. If the player makes the correct selection, the player moves on to the second fictional object 720b, for which the display depicts three prices 726. The player is prompted to select which of the three displayed prices 726 is closest to the actual price 728 of the second fictional object 720b without exceeding the actual price 728. If the player makes the correct selection, the player moves on to the third fictional object 720c, for which the display depicts four prices 730. The player is prompted to select which of the four displayed prices 730 is closest to the actual price 732 of the third fictional object 720c without exceeding

[0093] The game is preferably all or nothing such that any incorrect selection along the way loses the game. In one alternative embodiment, the player is awarded a payout for each correct selection and is given the option of either (1) risking any payouts to make another selection or (2) quitting and keeping any payouts awarded to that point in the game. In another alternative embodiment, the player is awarded a payout for each correct selection, and an incorrect selection merely ends the game without costing the player any payouts awarded to that point in the game.

[0094] Bonus Game #61: Referring to FIG. 65, the

display depicts a fictional object 740 and a plurality of animated characters 742, 744, 746, 748 representing contestants. The contestants are depicted at respective podiums and successively make respective "bids" or guesses 750, 752, 754, 756 as to the price 758 of the fictional object. The player is awarded a payout based on the contestant that bids the closest to the price 758 of the fictional object without going over that price. If all the contestants bid over the price 758, the contestants bid again. If the bid of any contestant exactly matches the price 758 of the fictional object 740, the player is awarded a supplemental payout. In one embodiment, prior to revealing which contestant bid the closest to the price, the player is prompted to select one of the contestants and is awarded a payout for selecting the winning contestant (e.g., the contestant that bid closest to the price 758 without going over). In another embodiment, one of the contestants represents the player, and the player determines the bid of that contestant by setecting one of a plurality of possible bids 750, 752, 754, 756 depicted on the display. At least one of the bids is a winning bid. The player is awarded a payout for selecting the winning bid.

[0095] Bonus game #61 may serve as a trigger or precursor to one of the other bonus games.

[0096] Bonus Game #62: Referring to FIG. 66, the display depicts a pair of animated characters 760 and 762 representing contestants at respective podiums. The display successively depicts a pair of fictional "showcases" 764a-b each including one or more fictional objects 766. After displaying the first showcase, the first contestant 760 either chooses to make a bid 770 on the first showcase 764a, or pass it to the second contestant 762 to make a bid 772 on the first showcase 764a and instead make a bid 770 on the second showcase 764b. After both contestants 760 and 762 have bid on their respective showcases 764a-b, the actual prices 768a-b of the showcases 764a-b are revealed. The player is awarded a payout based on the contestant that bids the closest to the price of his or her showcase without going over. If both contestants overbid, the player wins nothing. If the bids of both contestants are exactly the same amount less than the prices of their respective showcases, the player is awarded a payout based on both showcases. If the bid of the winning contestant is within a predetermined amount (e.g., 100 credits) of the price of his or her showcase, the player is again awarded a payout based on both showcases.

[0097] In one embodiment, prior to revealing which contestant bid the closest to the price of his or her show-case, the player is prompted to select one of the contestants and is awarded a payout for selecting the winning contestant (e.g., the contestant that bid closest to the price without going over). In another embodiment, one of the contestants represents the player, and the player determines the bid of that contestant by selecting one of a plurality of possible bids depicted on the display. At least one of the bids is a winning bid. Another of the

EP 1 266 677 A1

20

25

35

40

bids may also be a winning bid, but within the predetermined amount of the price of the showcase. The player is awarded a payout for selecting either winning bid. The payout is, of course, greater if the winning bid is within the predetermined amount of the price of the showcase.

[0098] Bonus game #62 may be triggered by a major winning outcome, such as an outcome that generates a larger payout, in one of the other bonus games.

[0099] While particular embodiments and applications of the present invention have been illustrated and described, it is to be understood that the invention is not limited to the precise construction and compositions disclosed herein and that various modifications, changes, and variations may be apparent from the foregoing descriptions without departing from the spirit and scope of the invention as defined in the appended claims. For example, instead of simulating the reels on a video display, the reels may be mechanical and driven by respective stepper motors. If the reels are mechanical, the bonus game is animated on a separate video display. Furthermore, rare outcomes in one or more of the bonus games may allow the player to win a real prize, such as a new car. As is common in larger casinos, the real prize may be located near the gaming machine to encourage players to play the machine.

Claims

- A game of chance for a gaming machine (10) controlled by a processor (16) in response to a wager, comprising:
 - a basic game randomly selecting one of a plurality of possibly outcomes, the plurality of possible outcomes including at least one start-bonus outcome; and
 - a bonus game triggered by the start-bonus outcome, the bonus game having a game show theme and including randomly selected pricing indicia (100) representing the price of one or more objects.
- A method of conducting a game of chance on a gaming machine (10) controlled by a processor 45 (16), comprising:

receiving a wager;

providing a basic game that randomly selects one of a plurality of possibly outcomes, the plurality of possible outcomes including at least one start-bonus outcome; and

in response to the start-bonus outcome, providing a bonus game having a game show theme and including randomly selected pricing indicia (100) representing the price of one or more objects.

- A gaming machine (10) controlled by a processor (16) in response to a wager, comprising:
 - means for awarding a number of game pieces (486) based on selections made by a player; and
 - means for successively and randomly directing each awarded game piece (486) down a pachinko-type peg board (488) to one of a plurality of payout indicia (492).
- 4. The gaming machine of claim 3, wherein the pachinko-type peg board (488) includes an entry end, an array of pegs (490), and an exit end, the array of pegs (490) extending between the entry end and the exit end, the plurality of payout indicia being proximate the exit end.
- The gaming machine of claim 3, wherein the pachinko-type peg board (488) is displayed on a video display (12).
- The gaming machine of claim 3, further including means for awarding a payout based on the respective payout indicia (492) to which each game piece (486) is directed.
- 7. The gaming machine of claim 3, wherein the means for awarding a number of game pieces (486) includes means for providing a plurality of pairs of selectable elements (482) and allowing the player to select one element in each pair, one of the elements in each pair being associated with a respective game piece (486), the awarding means awards a game piece (486) for each selected element that is associated with the respective game piece.
- The gaming machine of claim 3, further including means for awarding a free game piece in addition to the game pieces (486) awarded based on the selections made by the player.
- A gaming machine (10) controlled by a processor (16) in response to a wager, comprising:
 - a selection stage for awarding a number of game pieces (486) based on selections made by a player; and
 - a pachinko-type stage for successively and randomly directing each awarded game piece (486) down a pachinko-type peg board (488) to one of a plurality of payout indicia (492).
- 10. The gaming machine (10) of claim 9, further including a basic game including a plurality of possible outcomes, the plurality of possible outcomes including at least one startbonus outcome for triggering a bonus game including the selection stage and the

25

pachinko-type stage.

- 11. The gaming machine of claim 10, wherein the basic game includes a plurality of symbol-bearing reels (30-34) that are rotated and stopped to place symbols on the stopped reels in visual association with a display area (12).
- 12. A method of conducting a game of chance on a gaming machine (10), comprising:

receiving a wager;

awarding a number of game pieces (486) based on selections made by a player; and

successively and randomly directing each awarded game piece (486) down a pachinko-type peg board (488) to one of a plurality of payout indicia (492).

- 13. The method of claim 12, wherein the pachinko-type peg board (488) includes an entry end, an array of pegs (490), and an exit end, the array of pegs (490) extending between the entry end and the exit end, the plurality of payout indicia (492) being proximate the exit end.
- 14. The method of claim 12, wherein the pachinko-type peg board (488) is displayed on a video display (12).
- 15. The method of claim 12, further including awarding a payout based on the respective payout indicia (492) to which each game piece (486) is directed.
- **16.** The method of claim 12, wherein the step of awarding a number of game pieces (486) based on selections made by a player includes:

providing a plurality of pairs of selectable elements (482);

receiving selections from the player of one element in each pair, one of the elements in each pair (482) being associated with a respective game piece (486); and

awarding a game piece (486) for each selected element that is associated with the respective game piece.

- 17. The method of claim 12, further including awarding a free game piece in addition to the game pieces awarded based on the selections made by the player.
- 18. A method of conducting a game of chance on a gaming machine (10), comprising:

receiving a wager;

conducting a selection stage in which a number of game pieces (486) are awarded

based on selections made by a player; and conducting a pachinko-type stage in which each awarded game piece (486) is successively and randomly directed down a pachinko-type peg board (488) to one of a plurality of payout indicia (492).

- 19. The method of claim 18, further including conducting a basic game including a plurality of possible outcomes, the plurality of possible outcomes including at least one startbonus outcome for triggering a bonus game including the selection stage and the pachinko-type stage.
- 20. The method of claim 19, wherein the step of conducting a basic game includes rotating and stopping a plurality of symbol-bearing reels (30-34) to place symbols on the stopped reels in visual association with a display area (12).

17



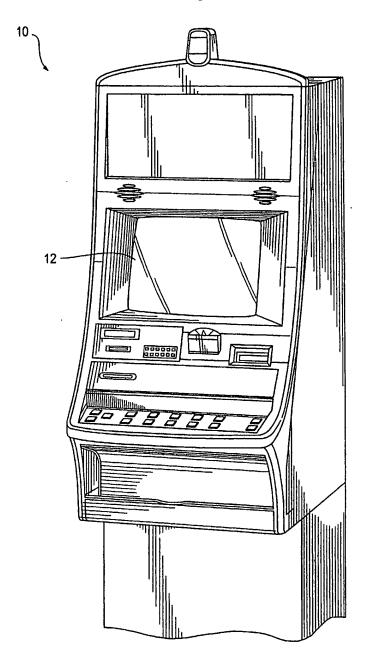
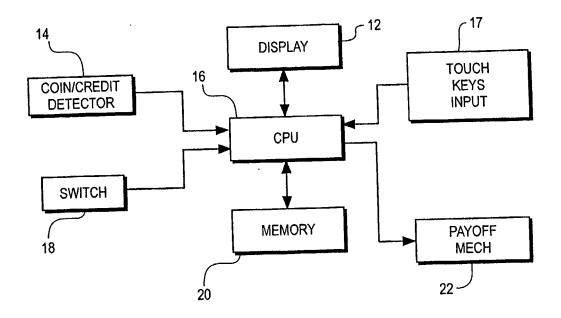
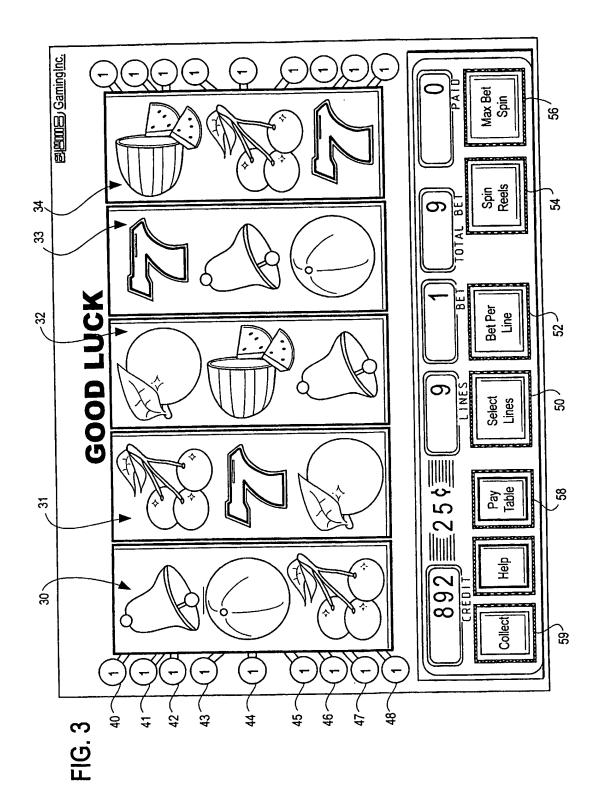
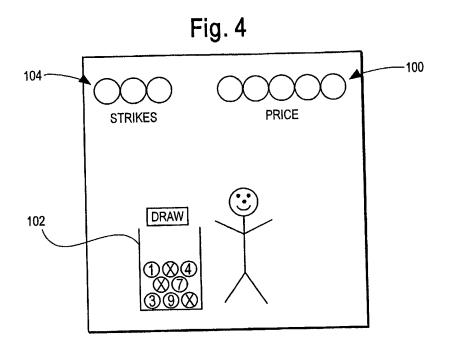
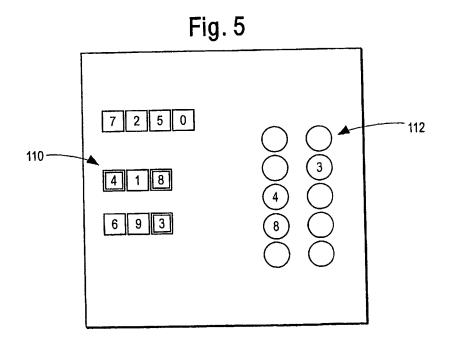


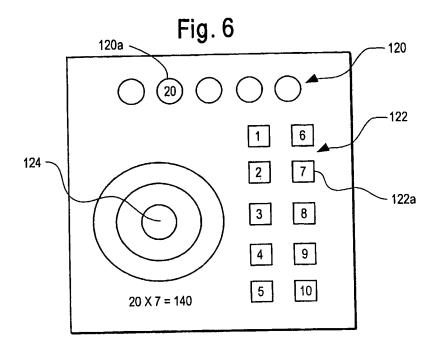
Fig. 2

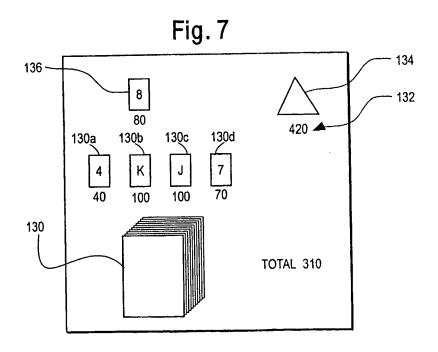


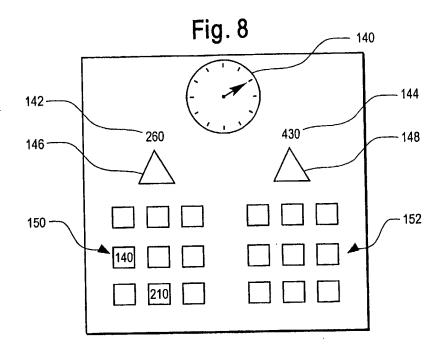












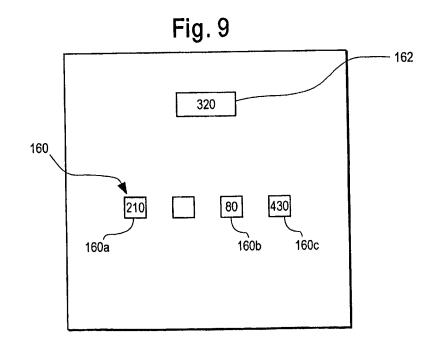


Fig. 10

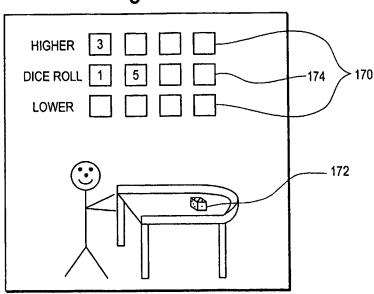
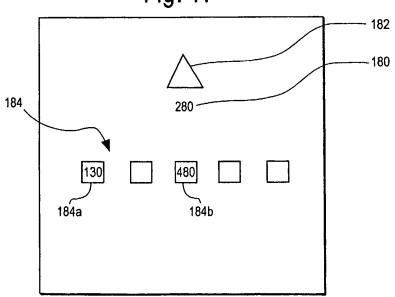
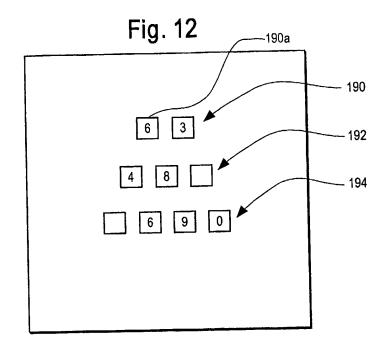
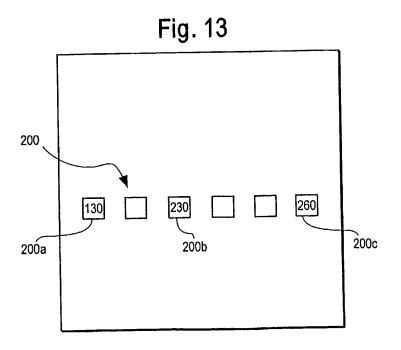
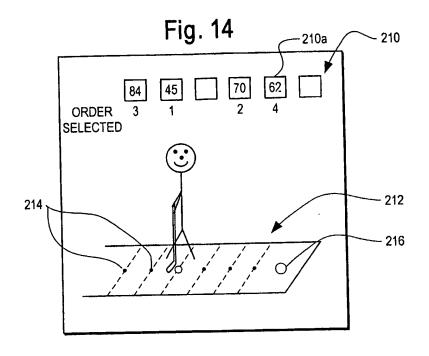


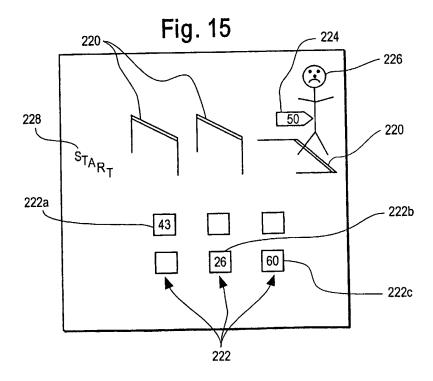
Fig. 11

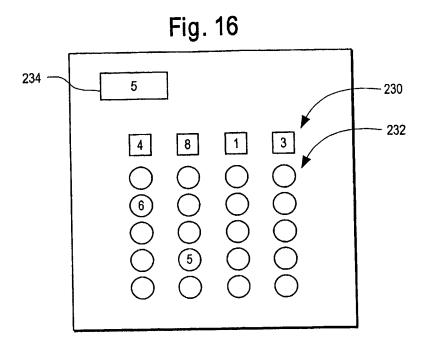


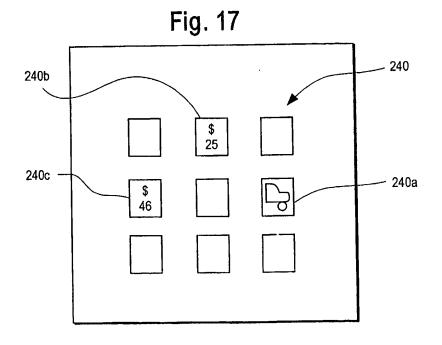


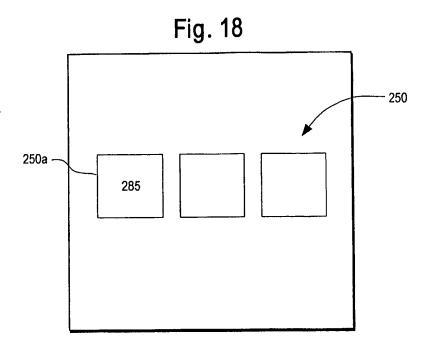


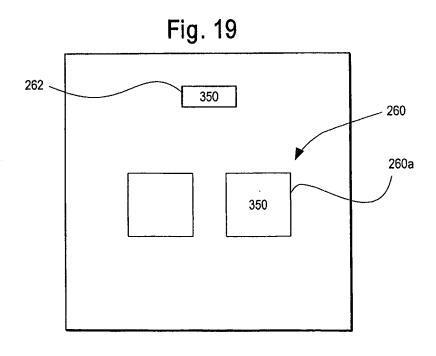


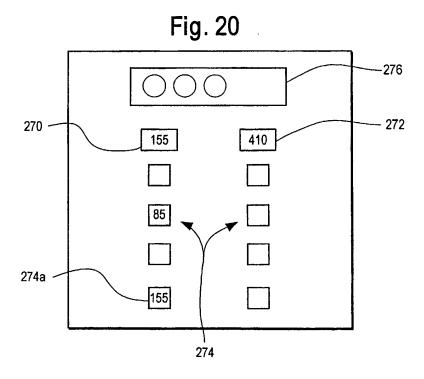












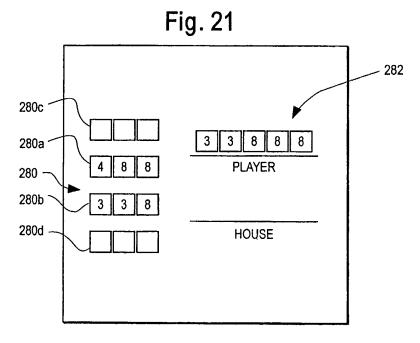


Fig. 22

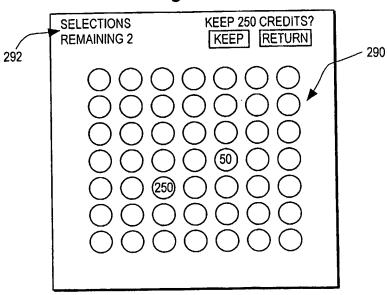
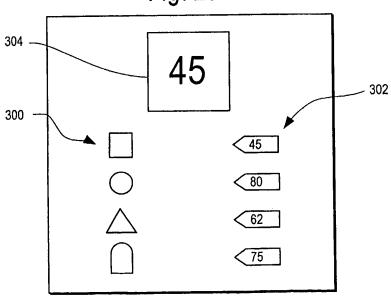
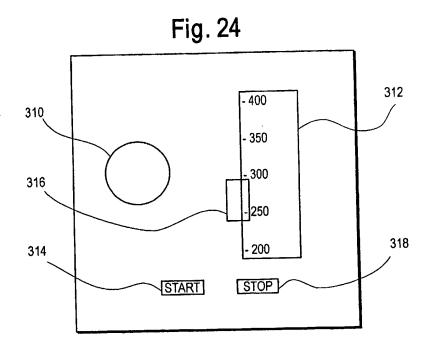
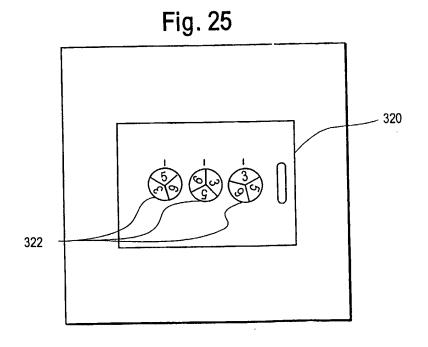
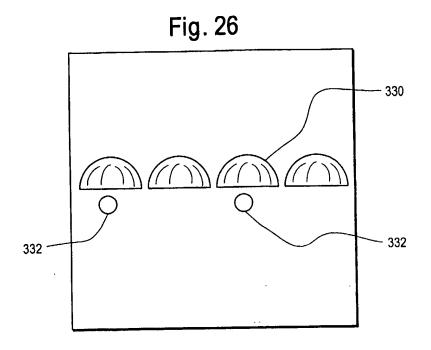


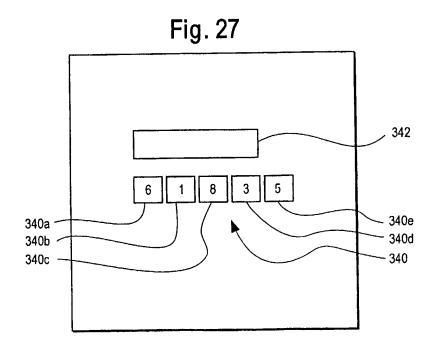
Fig. 23

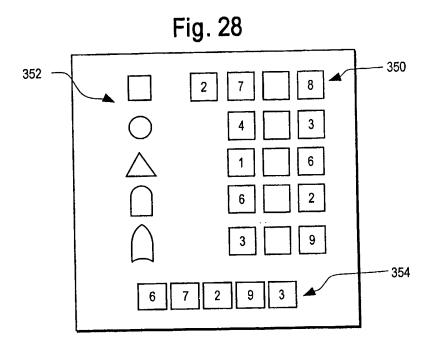












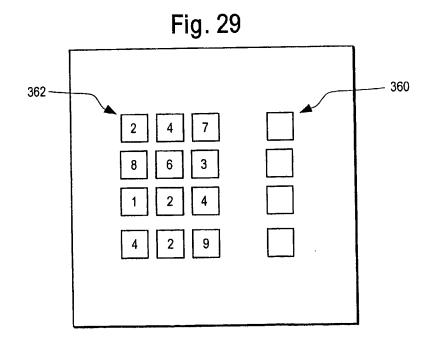


Fig. 30

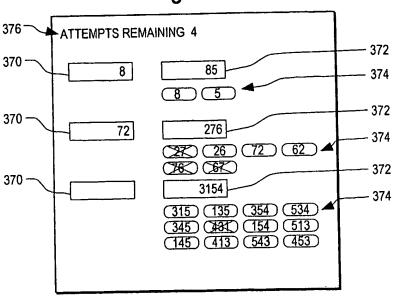
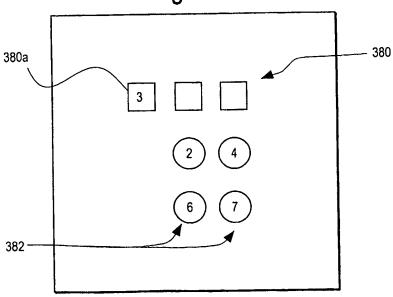
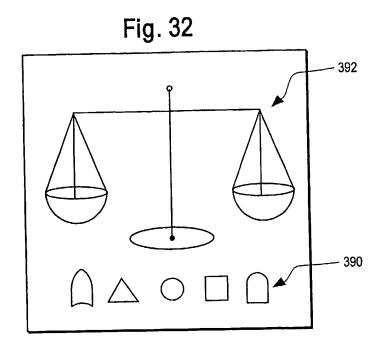
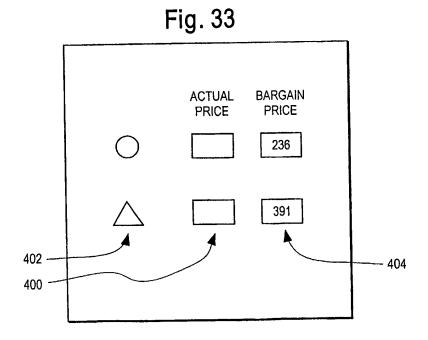
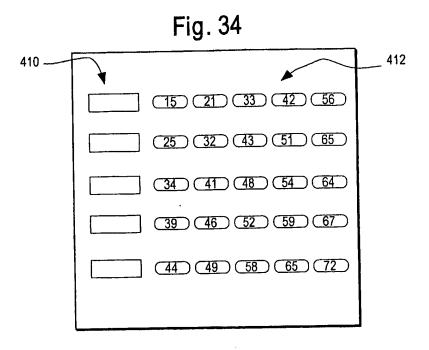


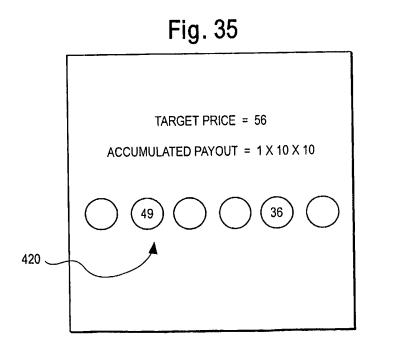
Fig. 31

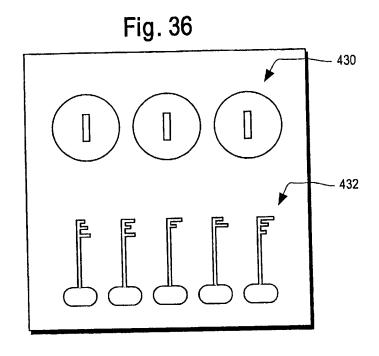


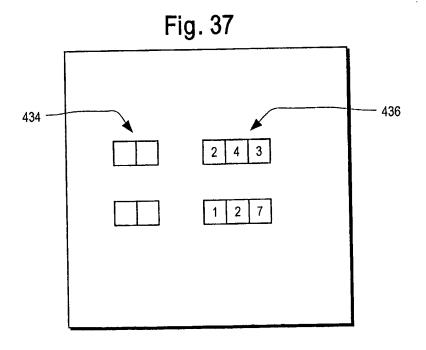












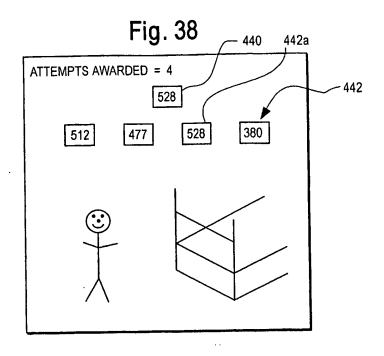


Fig. 39

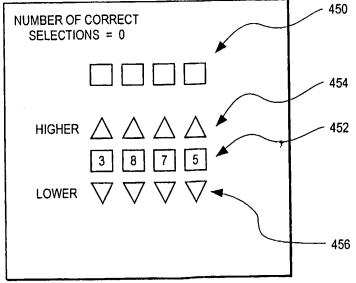


Fig. 40

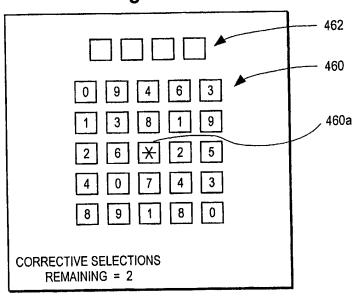
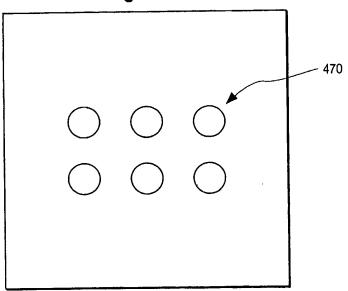
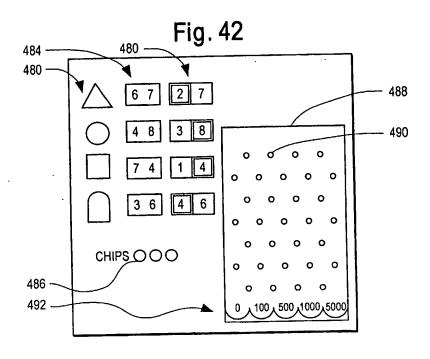
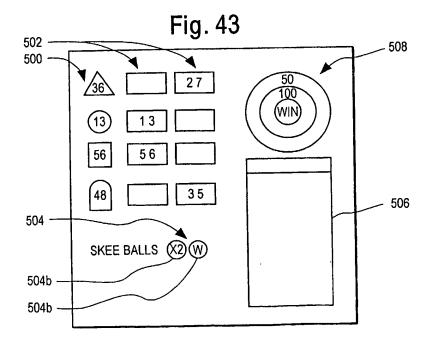
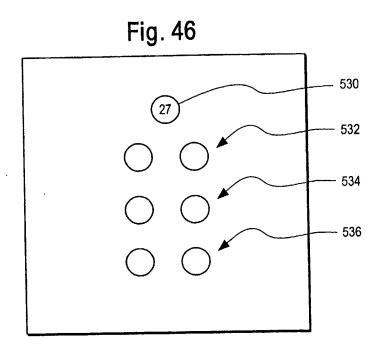


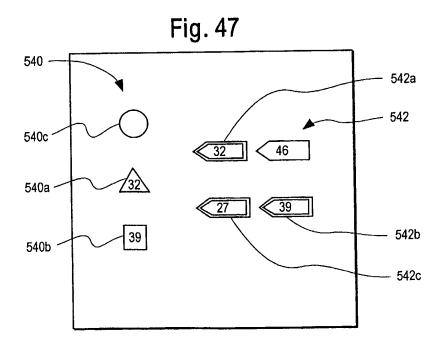
Fig. 41

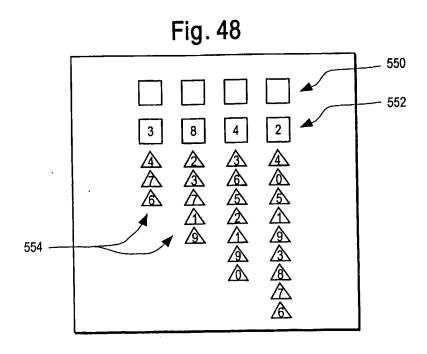












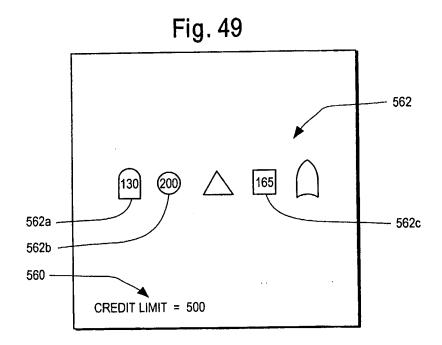


Fig. 50

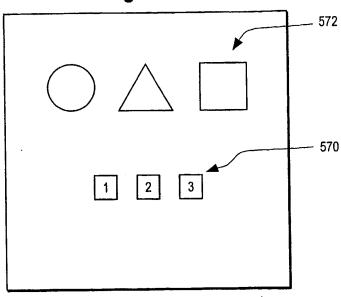
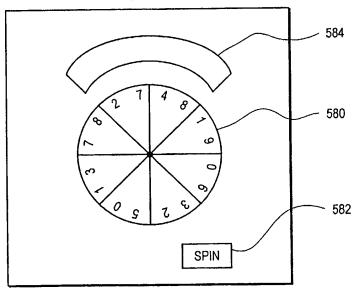
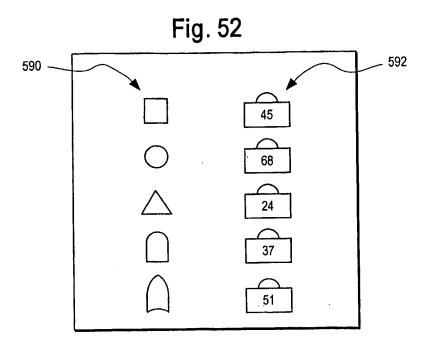
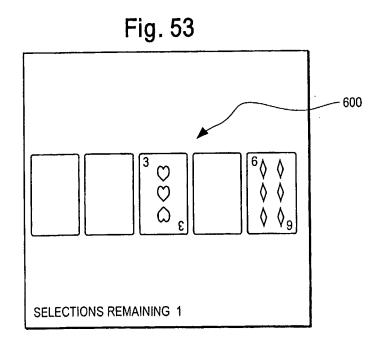
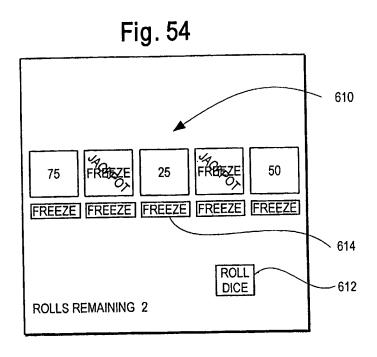


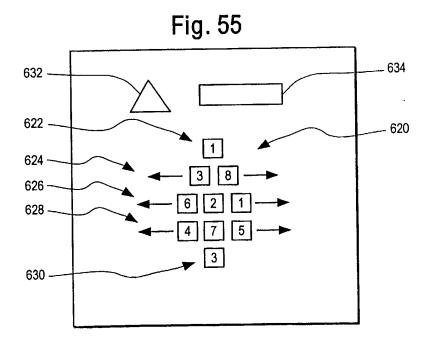
Fig. 51

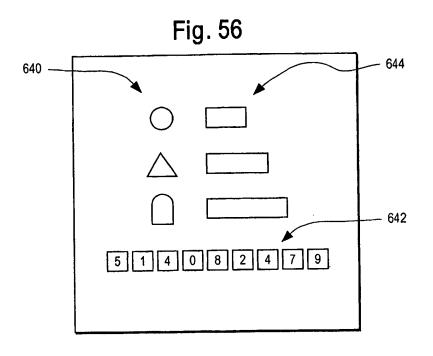


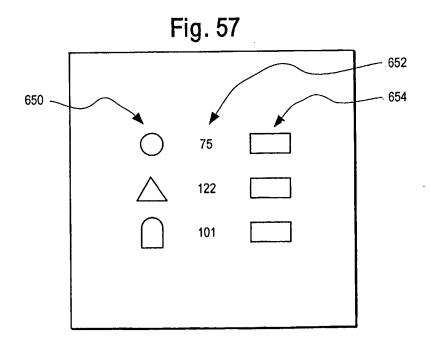


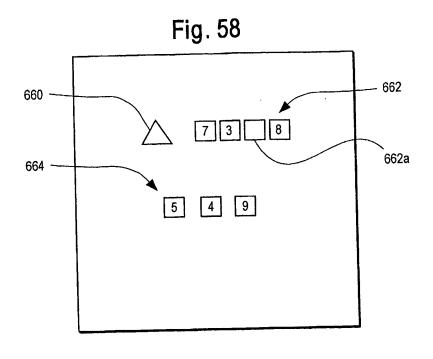


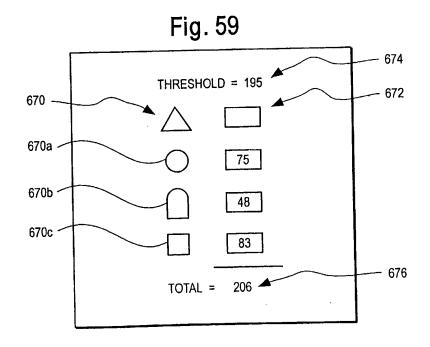


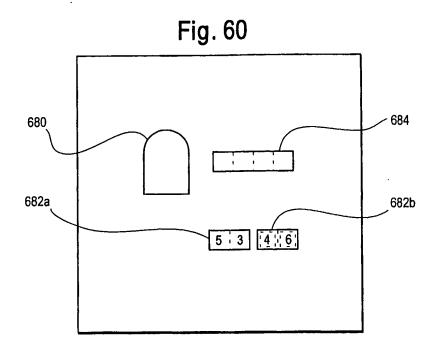


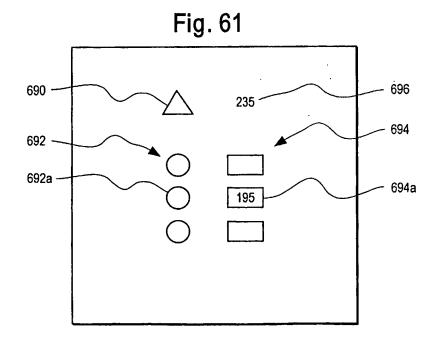


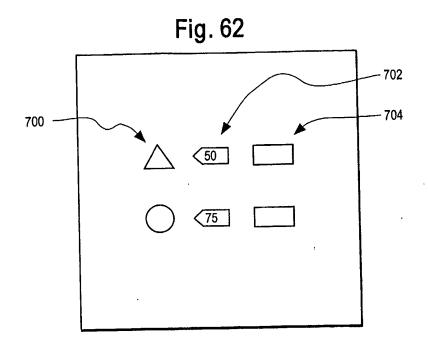


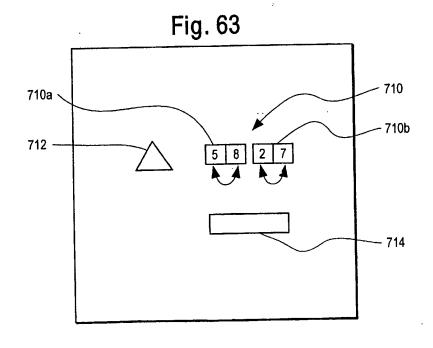


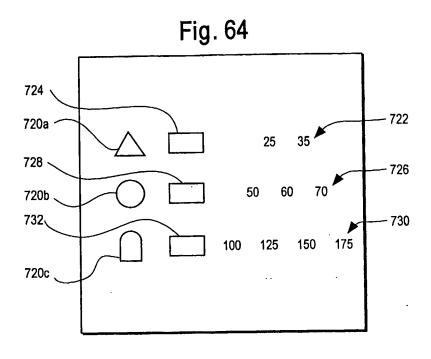


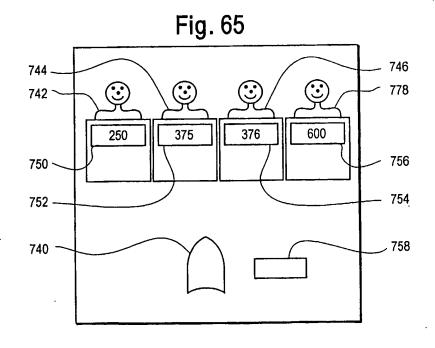


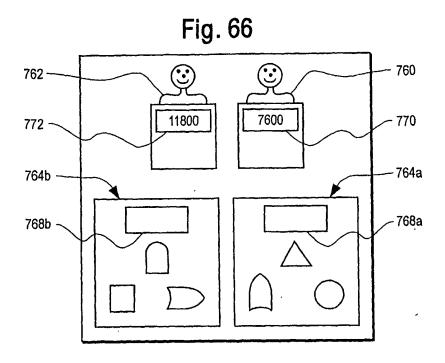














PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent ConventionEP 02 29 0931 shall be considered, for the purposes of subsequent proceedings, as the European search report

	r'	ERED TO BE RELEVAN	· · · · · · · · · · · · · · · · · · ·	+
Category	Citation of document with of relevant pas	indication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X A	20 March 2001 (200)	RISE DAVID A ET AL) 1-03-20) 7 - column 3, line 36	11	A63F7/02
Х	US 5 120 060 A (PAR 9 June 1992 (1992–(3,4,6,9	
A	US 5 342 047 A (HE) 30 August 1994 (199 * abstract; figures		5	
				TECHNICAL FIELDS SEARCHED (Int.Cl.7)
				A63F G07F
INCO	MPLETE SEARCH			
not complibe carried Claims se 3-6, Claims se Claims no 1, 2 Reason to	y with the EPC to such an extent that out, or can only be carried out partial arched completely: 9,11 arched Incompletely: t searched: 7,7,8,10,12-20 or the limitation of the search:	application, or one or more of its claims, a meaningful search into the state of the ity, for these claims. Scheme, rules and me	e art cannot	
·	Place of search	Date of completion of the searci	h	Examiner
	MUNICH	20 September 2		as, P
X : partic	TEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with anot	T : theory or pri E : earlier pater after the filin	notple underlying the in it document, but public	nvention

53

4

EP 1 266 677 A1

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 02 29 0931

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-09-2002

Patent documer cited in search rep		Publication date		Patent fan member(Publicatio date
US 6203009	B1	20-03-2001	US US EP WO US	5788230 2001009317 1131142 0007679 6203008 2001009316	A1 A1 A1 B1	04-08-199 26-07-200 12-09-200 17-02-200 20-03-200 26-07-200
US 5120060	Α	09-06-1992	NONE			
US 5342047	Α	30-08-1994	NONE			~~~~~~~~
nore details about this						